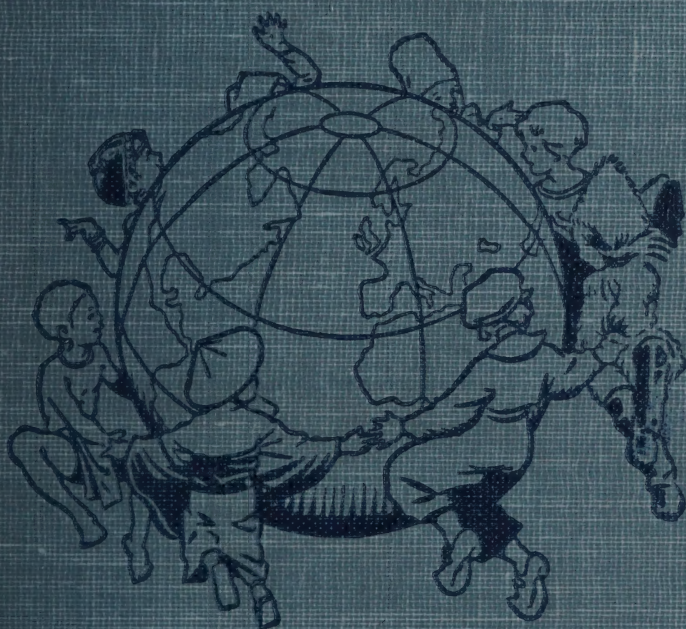
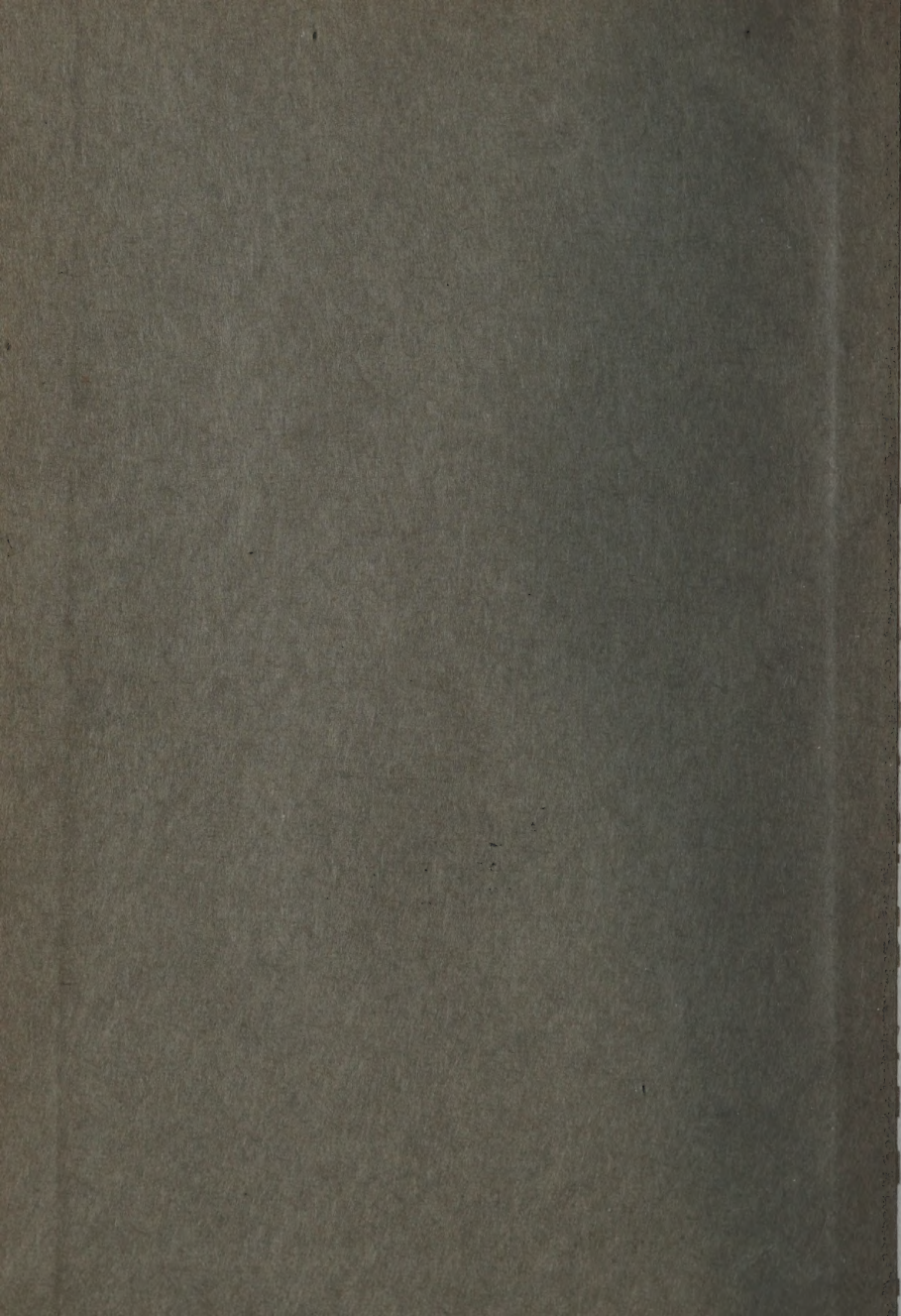
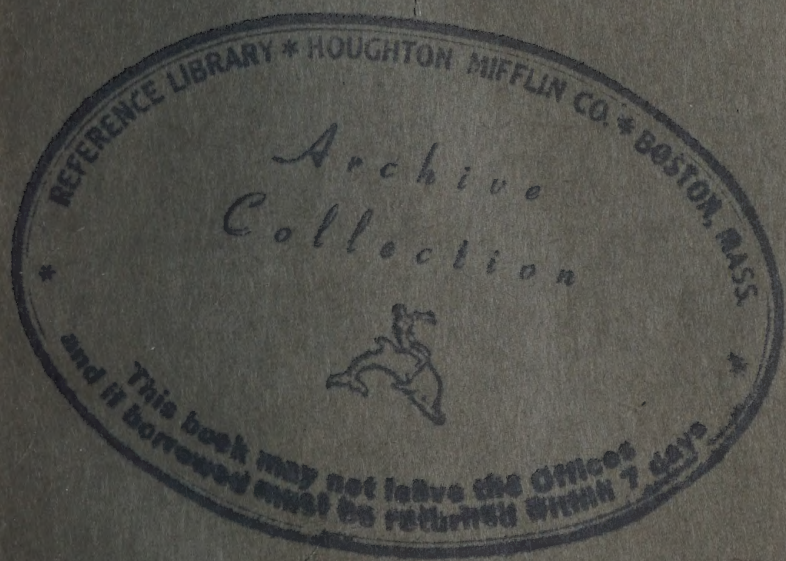


HOME LIFE AROUND THE WORLD



MIRICK AND HOLMES





HOME LIFE AROUND THE WORLD

AN INTRODUCTORY GEOGRAPHY

BY

GEORGE A. MIRICK

WITH ILLUSTRATIONS BY BURTON HOLMES

Revised and Enlarged Edition



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FOREWORD

THIS book was written with the following purposes in mind:

1. To provide a series of living pictures through which children might gain, under a teacher's guidance, an acquaintance with the way people live in different parts of the earth and with the characteristics of the environment influencing human life in each part. By constant comparison of the near and the distant, home and world geography illuminate one another.

2. To lead children by easy, natural stages to an understanding of the size of the earth, of its large divisions of land and water, and of the meaning and use of globes and maps.

3. To arouse an interest in history by introducing leaders in exploration and in promoting the welfare of their country or the world.

4. To raise children's interest above the level of material things to an appreciation of the spirit of a people by stories, fables, and poetry that have grown out of local geographic conditions.

5. To open children's eyes to the fact that all people, whatever their state of civilization, their color or their ways of living, are alike in their human qualities; to lead them to see that each one receives from, and should give something to others and that friendliness, coöperation, and useful work are the producers of all good things the world around.

Acknowledgment is made to Frederick A. Stokes & Co., to G. P. Putnam's Sons, to Charles Scribner's Sons, and to the American Museum of Natural History for courtesies extended in the use of literary extracts and of pictures.

The pictures, for the most part, are those taken under the direction of the well-known traveler and lecturer, Mr. Burton Holmes. The photograph of Washington from the air, on page 163, was supplied by the Fairchild Aerial Surveys, Inc.

To Miss Mary Elizabeth O'Connor, Supervisor in the schools of Natick, Massachusetts, the authors are indebted for valuable assistance in the planning and writing of the new chapters that have been added in this edition. Chapter XXI teaches the meaning and use of maps. Chapters XXII and XXIII give reviews and tests that bring into relief the important facts that have been met with in previous study, systematize these facts, and give preparation and incentive for further individual and class study.

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Courtesy American Museum of Natural History, New York

NORTH AND SOUTH AMERICA

Important locations — The two continents; Atlantic Ocean; Pacific Ocean; Northern Ice Cap; Appalachian Mountains; Rocky Mountains; Andes Mountains; Mississippi River; Gulf of Mexico; Amazon River; New York City; city of Washington; home of the Esquimo dogs; Labrador; California; Equator.

HOME LIFE AROUND THE WORLD

CHAPTER I

A HOME ON THE ICE

1. NOGASAK was a little Eskimo girl. She lived with her father, mother, and little brother in a village on the edge of the northern ice-cap. There were only fifteen families in the village, but in these there were other children so that Nogasak and her brother did not lack for playmates.

2. The village was an odd-looking place. The houses were rounded mounds of snow about as tall as a man. They were huddled together in no particular order. Each family built its house where it pleased without regard to streets. There was really no need for streets in so small a village in a land of ice and snow.



*Courtesy American Museum of
Natural History, New York*

AN ESKIMO GIRL

This little girl is about Nogasak's age and looks very much like her.

3. Besides, it was not so important where they built their houses as it is with us,

for they do not occupy them very long. When they have caught or frightened away the fish and seals in one place, they pack their furs, their kettles and lamps upon sleds. They harness the dogs to the sleds. The women put their babies on their backs. The men take their bows and arrows, their spears and hunting knives.



Courtesy American Museum of Natural History, New York

MAKING A SNOW HOUSE

There are no trees where this picture was taken. That shows that it is very far north. Tell how a snow house is made. The man at the left is standing in the trench that will become the entrance to the house. How are the dogs kept from running away?

Then, with a cry to the dogs and the snapping of the long whips, the whole village moves off to a new place where seals and fish are plenty. In a few hours the new houses are built and the families take possession.

4. Nogasak's home was so far away in the North that strangers seldom visited it. For many, many miles in all directions nothing was to be seen but glistening ice and white snow, except where the blue waters of the

Arctic Ocean sparkled in the cold sunlight. In all the ten years of Nogasak's life she had never seen any one but her own family and neighbors. You may be sure that it was an exciting day for her and the other children, as well as for the grown people, when three strange men and a big sled drawn by a team of fine dogs were seen coming over the snow towards their little village.

5. Eskimo children do not go to school, and they cannot read and write, but they can tell a story like other children. This is Nogasak's story of what happened the first day of the strangers' visit.

NOGASAK'S STORY

6. "One bright winter day we children were watching the men as they were cutting up a seal that had just been caught. All at once the dogs began to bark furiously. Most of the women were in the snow houses at the time, sewing together pieces of bear or seal skin for clothes or preparing the mid-day meal. They crawled out and we all stood about wondering what was disturbing the dogs.

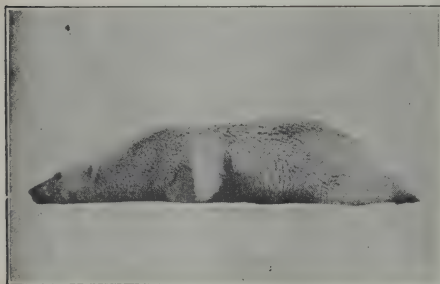
7. "It did not take us long to find out. Far off over the snow we could see coming towards us a sled piled high with bundles, drawn by six dogs. Walking by the sled were three strange looking men.

8. "At first we thought they were spirits, for we had never seen any but our own people. But when they came near we were greatly relieved to discover that they were

really men. By their actions it was evident that they were friendly.

9. "When we learned that they had come from a warm country, many hundred miles to the south, to visit us, we all tried to make them welcome. Each one wanted them to stay at his house. But as we build our houses just large enough for the family, all were too small to accommodate them. So it was decided to build a special house for them.

10. "While the house was being built by the men, our mothers were busy preparing food for the strangers.



Brown Brothers

A POLAR BEAR

When the food was ready, the children were sent to invite the men to dinner. One of them came to our house, much to our delight.

11. "The man sat down on a pile of furs, and mother asked him if his feet were not damp. She pulled off his boots and hung them over the lamp to dry, as the lamp is the only fire we have. She hung up the damp socks with the boots and gave the man a pair of father's dry ones to put on. Mother found that his mittens had a hole in them and she promised to mend it after dinner. We stood around ready to do what we could to make the visitor comfortable.

12. "Mother had cut up some seal meat and boiled it in a kettle. She cut off a piece with a copper knife. This copper knife is considered a great treasure in our family. It is made from a piece of copper that father found nailed to a stick of wood. The wood was part of a vessel that had been crushed somewhere in the ice. There are only two copper knives in our village. All the others are made of bone.

13. "But, as I was saying, mother cut off a piece of seal meat and squeezed the water out of it with both hands, so it would not drip. The man took it in his hands and ate it with great relish. Mother then passed him a slice of raw fat and an ox-horn full of soup that she dipped from another kettle.

14. "While the stranger was eating, mother sat on one side of him and father on the other side. There was just room left in the house for two children to stand on the floor, my brother and I. Our dogs poked their noses into the house from the passageway to watch what was going on and to get the bones that we threw to them. They had a bountiful meal.

15. "Mother did not forget the neighbors. She cut off some nice pieces of meat and told my brother and me to carry them to some families in the village that had not been able to catch any seals. Soon children came from other houses with gifts of meat for the stranger, and with invitations to eat the next meal at their house. He was promised seal kidney and a whole seal flipper if he would go. We were sure such fine things to eat would tempt him.

16. "After dinner mother poured some oil into the lamp so it would not go out while we were away, and we all went to see the new house that the men had been building for the strangers. We found it was finished and ready to occupy. It had been built big enough to accommodate all the people in the village. Every one came to call on the strangers and to talk. They wanted to learn where the men had come from, why they had come, and all about the people among whom they lived.

17. "The children gathered behind one of the houses and talked about the wonderful men. After we were tired of talking, we played with the puppies, and chased each other around the snow houses. The older boys had a shooting-match with bows and arrows.

18. "Late in the afternoon I crawled into our house to take a rest. I found a piece of raw meat on the floor and lay down on the snow bench to eat it and take a nap. We can generally find some frozen pieces of raw meat or chunks of fat on the floor. These taste good when you are hungry.

19. "In the evening there was to be a dance to celebrate the coming of the strangers. A dozen young men put on their house-building clothes and mittens and with their snow-knives began to build a dance-house. Before night the big house was ready. All the grown people crawled in and sat around on the snow-platforms that had been covered with the soft fur skins of the seal, the bear, and the musk-ox. There was one musical in-

strument, a drum. Each one danced alone, in turn. All the time the drum was sounding and those who could were singing.

20. "The dancing continued till far into the night. When it was over, all the people went with the strangers



Courtesy American Museum of Natural History, New York

A COMPANY OF ESKIMOS

How does the mother carry her baby? The bandage over the eyes of several of them is to protect their eyes from the glare of the white snow. What else shows that the sunlight hurts their eyes?

from the dance-house to the house that had been built for them, and then scattered, each family to his own home. We crawled through the twenty-foot passageway into our house. We found the oil-lamp burning as we had left it, and home seemed very snug and cozy. The dogs curled up in the passage. We rolled ourselves in the furs and lay down, some of us on the snow-platform and some on the floor. We were soon fast asleep."

FOR PUPILS' STUDY

1. What is the northern ice-cap? Where is it?
2. Draw a circle to represent the earth. Mark with your pencil the part covered by the northern ice-cap.
3. Do people live on this ice-cap?
4. What are the people called who live along its edge?
5. Why did not Nogasak live in a house built of wood?
6. Why did not Nogasak's people have vegetables and bread to eat?
7. Draw a picture of a snow house and tell how it is built.
8. What different things do the Eskimos eat who live on the edge of the ice-cap?
9. What kind of clothes do they wear?
10. In paragraph 16 oil is mentioned. What kind of oil is it? What kind of oil do you burn at home?
11. What different things did the Eskimos do to show their good will to the strangers?
12. Read the sentences that show that they were kind to one another.
13. How did the children in Nogasak's village spend their time?
14. Why do you think Nogasak ought to be happy?
15. Write five questions that you would like to ask Nogasak if you should meet her.
16. Write five questions that she would probably ask you about your home.
17. Write Nogasak a short letter.
18. Give one or more reasons why you would prefer to live where you do rather than on the edge of the ice-cap.

CHAPTER II

AT THE NORTH POLE

1. It was a cold winter's day. On the edge of the northern ice-cap, not far from the home of Nogasak, a company of men, dressed in fur, with two sleds each drawn by a team of Eskimo dogs, was going north over the ice.

2. The sleds were loaded with cans of meat, condensed milk, biscuit, tea, and solid alcohol; sleeping

bags, spare mittens and boots of fur; axes, snowshoes, and instruments of different kinds, some for measuring the depth of the water, if they should come to any open places in the ice, others for determining how cold it was, and yet others for finding out when they had actually reached the most northern point on the earth.

3. A tall man was marching ahead. With stern face and with firm step he was leading the way straight to the north where no human being had ever been before. He could not be sure that he and his brave companions would ever return. This was Admiral Robert E. Peary.



ONE OF ADMIRAL PEARY'S DOGS

This dog went to the North Pole.



Courtesy American Museum of Natural History, New York

ADMIRAL PEARY'S SLEDGE

This sledge went to the North Pole. How are the parts held together? Why were not nails used? Name the different things you see on the sledge and tell what they were used for. Can you make a model of this sledge with your pocket-knife?

4. Mr. Peary was an admiral in the United States Navy, but he had spent many years in these cold regions and he loved the snow, the ice and the freezing winds.



Brown Brothers

ADMIRAL PEARY

Where do you think he is standing? What has he in his hands?

This is what he says about them.

“More than once I have come back from the great frozen spaces, battered and worn and baffled, sometimes maimed, telling myself that I had made my last journey thither. But somehow, it was never many months before the old restless feeling came over me. I began to long for the battles with the ice and the gales, the handful of odd but faithful Eskimos who had been my friends for years, the silence and the great white lonely North. And back I went accordingly, time after time, until at last my dream of years came true.”

5. Admiral Peary's dream was to find the North Pole. He had many friends who wanted to help him make his dream come true. They built a vessel for him, called the *Roosevelt*, in honor of

the man who was then President of the United States. In this he had sailed from New York with the men whom he had selected to go with him. He had stopped along the way to take on board the Eskimos and the dogs that he needed.

The *Roosevelt* had pushed its way as far north as it could go and was now frozen fast in the ice at the edge of the ice-cap. Sled loads of food had been carried from the vessel and been buried in the snow where Admiral Peary could find it on his way back from the Pole. The strongest and most faithful dogs had been harnessed to two sleds. Last of all the most trusted of his com-

panions had been chosen to go with him. They had left behind the rest of the company, who were to stay in the *Roosevelt* until their return.

6. Day after day Admiral Peary, his five companions and his sturdy dogs, traveled over the ice and snow. We



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THE ROOSEVELT

Starting from New York Harbor. The boat has sails and a smokestack. Why will they need steam power, if they have sails? Can you find anything in the picture that shows that the *Roosevelt* is an American vessel?

will not try to describe their adventures and hardships. At last they did reach the Pole. They were the first and only people who have ever been to the North Pole.

7. What do you suppose he found there? Nothing but snow and ice stretching in all directions as far as the eye could see. There was nothing to show where the Pole is, but he could tell by his instruments that he was *very near* where it must be. This is what he has written about the place and what he did there.

AT THE NORTH POLE

8. "The North Star was practically overhead.

9. "East, west, and north had disappeared for us. Only one direction remained and that was south. Every breeze that could possibly blow upon us must be a south wind.

10. "We planted five flags at the top of the world. The first one was a silk American flag which Mrs. Peary gave me fifteen years ago. That flag had done more traveling in the cold regions of the North than any other ever made. I carried it wrapped about my body on all my trips. By the time it reached the Pole, therefore, it was somewhat worn and discolored.

11. "After I had planted the American flag in the ice, I told the men to give three rousing cheers, which they did with the greatest enthusiasm."

12. Admiral Peary then put into a bottle a piece of the flag with two notes, and left it in a crack of the ice. One of the notes reads: —

13.

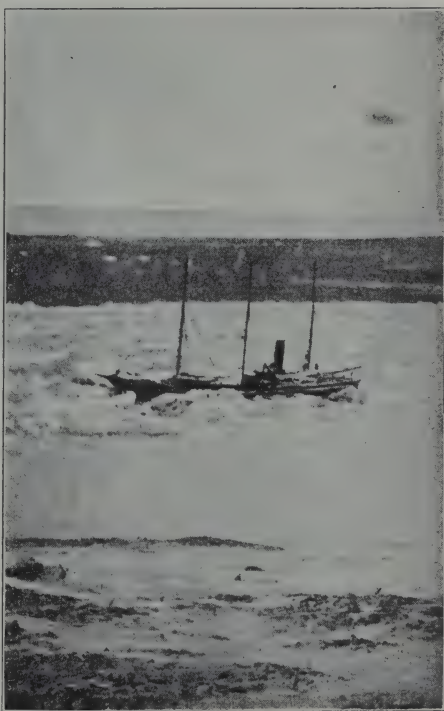
"90° North Latitude, North Pole,
"April 6, 1909.

"I have to-day hoisted the national ensign of the United States of America at this place, which my observations indicate to be the North Polar axis of the earth, and have formally taken possession of the entire region in the name of the President of the United States of America.

14. "I leave this record and United States flag in possession.

"ROBERT E. PEARY,
" *U.S. Navy.*"

15. Now Admiral Peary and his companions must find their way back to the edge of the ice-cap where those whom they had left behind were waiting for them. Southward they go over the snow, sometimes along the tracks they had recently made and at other times guided only by the stars and



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THE ROOSEVELT IN THE ICE

The *Roosevelt* frozen into the ice waiting for Admiral Peary's return from the North Pole.

their compass. One after the other they find the places where their food had been buried. Snowstorms often blind them and nearly cause them to lose their way. They climb over high ridges of snow and cross wide cracks in the ice that lie in their pathway. But after days of toil and danger, they see in the distance the tall, slender masts of the *Roosevelt* rising out of the snow, and with shouts of joy they soon join their friends.

FOR PUPILS' STUDY

1. Who discovered the North Pole?
2. What did he find there?
3. Read again what Admiral Peary has written about it.
4. Write two or three questions suggested by Admiral Peary that you would like to have your teacher answer.
5. Imagine that the American flag that Admiral Peary carried around his body could talk. What story could it tell?
6. How many years ago was the North Pole found?
7. To what country does the North Pole belong?
8. Why do not people or animals or plants live at the North Pole?
9. Make a list of the new words you have found in this chapter. Compose sentences containing each of these words.
10. Trace on the globe or map Admiral Peary's journey from New York to the North Pole.
11. Admiral Peary wanted very much to find the North Pole. Have you ever wanted to do something that was very difficult? Read paragraph 4 and tell why the Admiral finally succeeded in doing what he wanted to do.

CHAPTER III

COLONEL, THE ESKIMO DOG

1. HE was born in a country called Labrador, some distance south of the northern ice-cap. It is warmer here than it is where Nogasak lives. The ground is not al-

ways covered with ice and snow. In July and August grass grows and dandelions, buttercups, and other bright-colored flowers. Strangely enough none of the flowers in these cold countries has any perfume.

2. Of course the flowers and their lack of perfume were matters of no concern to Colonel, as they are to us, for he was a puppy. But he was very much interested, when the bare earth appeared, to dig in it and bury bones in it. He delighted, too, to chase the wild hares, to wander among the reindeer and to lie on the warm rocks in the sun and watch the birds flying overhead. Besides there were the mosquitoes that bothered him so much in the summer time! They rose in clouds from the damp places left by the melting snow. They bit through his thick, fur-covered skin and tormented him cruelly.

3. In many ways Colonel had a hard life. When he was very, very little the children played with him, but they had not been taught to treat animals gently, so he often was glad to escape from their games. The grown people did not want him around. They kicked and cuffed him and seldom spoke a kind word to him. He never was allowed to stay indoors summer or winter. When rain and sleet were beating down on his back or the winter blizzard was blinding him with snow, how he longed to creep into the hut where people seemed to be so comfortable!

4. But all these hardships compelled Colonel to learn how to take care of himself. When the freezing winds

blew from the north and deep snow covered the ground, he noticed that the older dogs dug deep holes in the snow and disappeared in them. One day he crept up to one of these holes and looked in. There at the bottom was a dog rolled up like a ball with his nose tucked under his bushy tail. Colonel went away and dug a hole for himself too and found that he could sleep there as comfortably as we do in our warm beds. It was even more comfortable when the snow blew in and covered him over like a blanket. If meat and bones were scarce, as they often were, if he had failed to catch a bird or a wild hare or to pull a fish out of the water with his paw, which he became very skillful in doing, Colonel learned to go hungry and not complain. He also learned that snow would quench his thirst as well as water. In winter he found that was a great advantage.

5. So the weeks and months passed while Colonel was growing strong and wise, and the day came for him to be harnessed to a sled and to learn how to work with other dogs. He was quick to learn and ready to work, so he did not receive as many cuts with the stinging lash as the slower and less intelligent dogs did. His master saw very soon that he was going to be a remarkable dog, and that is why he was chosen to go across the Atlantic Ocean to Norway and from Norway southward, almost halfway around the earth, to help find the South Pole.

FOR PUPILS' STUDY

1. Find Labrador on the globe.
2. Why is it warmer at Nogasak's home than it is at the North Pole?
3. Why is it warmer in Labrador than it is on the edge of the ice-cap?
4. Name some of the animals that are found in Labrador. Find in your geography the names of other animals not mentioned here.
5. Name some of the plants that grow in Labrador.
6. What were some of the pleasant things in Colonel's life? What were some of the unpleasant things?
7. Read the parts of this chapter that tell how the people in Labrador live.
8. Tell an interesting story about your own dog.
9. Find some stories about dogs in books at home or at the public library. Read one or parts of one of these stories to the class.

CHAPTER IV

COLONEL HELPS TO FIND THE SOUTH POLE

1. ONE day a ship sailed into the harbor of the little village where Colonel lived. He had seen other ships come during the short summer bringing from somewhere cloth, guns and ammunition, knives, iron tools, matches, flour, sugar, tea, and a variety of other things that the people in the village used. He had watched these same ships sail away carrying bundles of furs and dried fish, barrels of whale-oil and piles of whale-bone. He ought to have guessed that there was a big world beyond his own little harbor, but he probably thought nothing about it. He certainly did not suspect that he was soon to visit foreign lands and even go to the other side of the earth.

2. So Colonel watched this particular ship, on this particular day, as he lay in a warm corner of the rocky

shore, with the same sleepy interest with which he had watched other ships come and go. If he had known



Underwood and Underwood

CAPTAIN AMUNDSEN

what was to happen, he surely would have been wide awake and probably would have run away. Then this story could never have been told. But he didn't know, and this is what happened.

3. There was a man named Captain Roald Amundsen who lived in a country in the northern part of Europe, called Norway. Like Admiral Peary he had spent much time in the cold regions of the north. When he learned that Admiral Peary had discovered the North Pole, he made up his mind to find the South Pole, if he could. To make

the journey over the snow and ice of the southern ice-cap he too must have the help of Eskimo dogs. So he had sent this ship, that Colonel was watching as it sailed into his harbor, to carry back to Norway one hundred of the best dogs to be found in all Labrador.

4. Although Colonei was not yet fully grown, he was selected with ninety-nine other dogs and put on board the ship. They sailed away eastward, across the Atlantic Ocean, until they came to Norway. On the way they passed the island called Greenland, from whose shores



SAILING ALONG THE SHORES OF NORWAY
Notice the bare steep rocks and the beautiful waterfalls.

huge icebergs break off every spring and float southward. They sailed by the little island called Iceland, and saw the clouds of steam that rise from its many hot-springs. They went so near the Shetland Islands that they could see the tiny ponies scampering over the rocky hillsides.

5. In due time they reached Norway and found another ship waiting for them. It was called the *Fram*. It had been built small and strong so that blocks of

floating ice might not break its sides and that it might not be crushed if it became frozen into an ice-pack.

6. Clothes for hot weather and for cold weather had been put on board the *Fram*, and canned food, oil for lamps, matches, sleds, snowshoes, axes, guns, tents, in



A HARBOR OF NORWAY

In what particulars is this harbor different from any harbor that you know? The men are drying fish on the rocks.

fact, everything that would be needed on the long and dangerous journey. The cabin had been made tight and warm, and kennels had been built on the deck for the dogs. When all was ready, Colonel and the other dogs were put into their kennels and the ship set sail.

7. The course of the ship was first westward and then southward over the Atlantic Ocean. This ocean is like a broad river between the four continents, North

America and South America on the west, and Europe and Africa on the east.

8. Each day, as they sailed southward across the North Temperate Zone, the air grew warmer. When they reached the Torrid Zone the men changed their woolen clothes for thin, cotton clothes. As they neared the Equator the heat became almost greater than they could bear. The dogs lay about the deck panting and longing for the cold, crisp air of their northern homeland.

9. The stanch little *Fram* made its way safely through the Torrid Zone into the South Temperate Zone. The air began to grow cooler once more. Men and dogs became more comfortable, and the farther south they sailed the more cheerful they became. From the South Temperate Zone they sailed into the South Frigid Zone and felt the cold south winds blowing from the South Pole. Soon they met big cakes of ice that had broken away from the southern ice-cap, and in a few days the ice-cap itself could be seen like a long white line on the southern horizon. They were all glad when they felt the sides of the *Fram* scrape the solid ice and realized that their long sea voyage was at an end.

10. During the voyage Colonel had behaved as well as an Eskimo dog could in such strange surroundings. He had kind masters who fed him well, petted him, and let him select his own companions. He had his preferences. Some of the dogs he did not like at all, and for others he had not much liking. But there were

two that he was so fond of that he was very unhappy away from them.

11. How glad he was when he felt the cool, soft snow under his feet again. He rolled in it. He ate it.



Brown Brothers

COLONEL ON THE FRAM

Colonel seems to be quite contented on board the ship. What shows that the *Fram* is sailing through a warm part of the ocean?

of one of the teams. He could be relied on to obey his master's voice, to keep the other dogs in his team at work, to pull hard, and to be steady in time of danger.

13. Over the ice and snow they went, mile after mile. They climbed over hills of ice, they jumped over deep cracks, pulling the sled after them. They were

He barked and jumped about and became so excited that he began to fight all the other dogs. If his master had not stopped them he would have killed and eaten one of them, or they would have killed and eaten him. We must not blame him for this, for he was an Eskimo dog and that was his nature.

12. The day had come on which they were to start for the South Pole. Colonel was chosen to be leader

often hungry and so tired they could hardly keep on their feet. But led on by Colonel they kept to their task until they reached the Pole. Here, above their heads,



Underwood and Underwood

AT THE SOUTH POLE

One of Captain Amundsen's companions and the sledge and team of dogs. Which one do you think is Colonel? To what country does the South Pole belong? What shows it in the picture?

at night shone the bright stars of the Southern Cross, and all the winds that blew were north winds.

14. Colonel watched while the flag of Norway was unfurled at the South Pole as the flag of our own country had been unfurled at the North Pole. Captain Amundsen knew that he and his four companions could never have reached this place that no man had ever

seen before, if it had not been for the help of Colonel and the other dogs.

15. There were fifty-two dogs that started for the Pole from the edge of the ice-cap and only eleven returned. Some had died by the way from overwork. Some had strayed away and been lost. Some had fallen into the cracks of ice and been dashed to pieces. But Colonel came back at the head of the faithful eleven, always the leader of the team.

FOR PUPILS' STUDY

This chapter has four parts.

The first part tells about the coming of the ship.

The second part tells about the journey to Norway.

The third tells about the long sail from Norway to the southern ice-cap.

The fourth tells about the finding of the South Pole.

1. Tell briefly the story in each part.
2. What new words have you found in this chapter?

3. On the globe show the journey from Labrador to Norway.

4. Draw a circle to represent the earth. (a) On this circle draw the northern ice-cap and the southern ice-cap. (b) Put a dot at the North Pole and one at the South Pole. (c) Draw a line halfway between the poles to represent the Equator. (d) Read in your geography about the zones. (e) Draw a line showing the voyage of the *Fram*.

CHAPTER V

IN THE LAND OF THE REINDEER

1. In the northern part of the continent of Europe, by the shores of the Arctic Ocean, dwell a people who are called Lapps. Their country is Lapland.

2. Some of the Lapps live near the shore and get

their food from the sea. Others live among the mountains and get their food from the little gardens that they cultivate and from the forests where they hunt wild beasts. But most of them wander over the low plains that extend for hundreds of miles in these regions.



Courtesy American Museum of Natural History, New York

IN LAPLAND — A SUMMER PASTURE

How is this house built? Make one like it on the sand table. Where are the windows? Find the herd of reindeer.

3. Those who live by the shore and in the mountains build houses of boards, as we do; or, if they are too poor to buy boards, they build huts of logs, of stones, and of mud and turf. But those who dwell on the plains make their homes in tents that they move from place to place, and they spend all their time caring for reindeer.

4. Nature has made it impossible, as we have seen, for people to live near the Poles. It seems, also, that

this wild country, Lapland, was not intended to be a home for human beings, because, during the short summers the ground is a damp meadow, and the air swarms with poisonous flies and mosquitoes: while in the long, cold winter, snow covers everything like a thick blanket. But in the widely extending meadow-lands a kind of moss grows in great abundance that reindeer prefer to all other kinds of food.

5. Nature has not only provided food for the reindeer, but has specially fitted him to live in just this kind of place. He quenches his thirst with snow when ice covers the water. He has long horns to protect himself from his enemies, the wild beasts. His feet are so made that they spread out when he walks on soft, spongy ground or on snow, so that he does not sink down into it. His spreading feet are useful also when he wants to swim in the water.

6. But he would starve to death in winter, if his feet were not provided with a hard, horny covering. This covering is so sharp that he can cut through the thin crust that often forms over the snow. Having broken through the crust, he digs down through the deep snow to the moss beneath, as a dog or cat digs a hole in the ground.

7. So we find that people do live here, and very happily too, for they know how to tame and how to care for and use the reindeer.

8. In this land of the reindeer a baby was born whom his parents named Nils. His father was a rich man, for

he owned a thousand reindeer. As is the custom in that country, a baby deer was given to Nils on the very day he was born. Now that he had grown to be quite a lad, he had more than fifty deer that he could call his own.

9. Nils had spent most of his short life among the deer. He had played with the young ones when he was



Brown Brothers

MILKING REINDEER

How do you learn from this picture that the reindeer is a rather small animal?
How tall is it?

little. As he grew larger and stronger he went to the pastures with his sisters at milking time. Each deer was held by a lasso while it was being milked. Nils felt very important the first time that the lasso was put into his hands. The deer were generally very gentle and seldom tried to get away.

10. He enjoyed watching his sister squeeze the stream

of milk into the little cup. When the cup was nearly full she would pour it into the keg with its sliding cover, or into a reindeer bladder for the men to take with them when they went to guard the herds.

11. It did not take long to milk one deer for each gave less than a pint. But the milk was so thick that it must be watered before it was drunk.

12. After the milking, Nils would return home and help make butter or, more often, cheese. Some of this was eaten at home and some was sent to the city to exchange for coffee, sugar, and cloth for summer clothes.

13. When Nils was older he went with the men to learn how to tend the herds. One man and a dog must always be with the reindeer, day and night, to keep them from wandering too far, and to drive off the wolves. Sometimes, when there was a rain storm or a snow storm, it was very hard work to tramp around all night; but, no matter how fiercely the storm raged or how bitter the cold, the deer must be guarded.

14. It was a sad trial at first to Nils to help kill the deer. But this had to be done once in a while, because the family must have the meat for food and the skins for winter clothing.

15. After the skins were prepared, they were made into coats, trousers, caps, boots, and mittens. The fur was shaved from the skins which were to be made into under garments. Long strips of the toughest parts were cut for harnesses.

16. Some of the skins must be set aside for blankets

to sleep in during the winter, and others were put in a pile to sell to traders.

17. A part of Nils' work was to make thread out of the tendons of the reindeer. The tendons are the hard cords that grow at the ankles. When these were dried, Nils was able to pull them apart into fine threads. The women used these threads instead of silk and cotton.

18. The horns and bones of the reindeer, Nils learned to fashion into knives and knife-handles, spoons, cups, scoops, and small tools of various kinds. The hoofs were put away to send to the city, where they were made into glue.



LAPP LAUGHTER

19. But Nils liked best of all to watch the men and women harness the reindeer into the sleds and ride off over the snow. He longed for the time to come when he could drive too. He shall tell his own story of his first ride.

NILS' FIRST RIDE

20. "You may imagine that I was wild with joy, although I tried not to show it, when father said one day,

‘Nils, you may go to the herd and catch the deer that we have been training for you. We will see what luck you will have driving him.’

21. “I put on my snowshoes, for the snow was soft and deep, and started off on the run to the herd which was four miles away.

22. “When I reached the place where I knew the herd was, I found the deer almost buried out of sight in the snow. About all I could see was hundreds of little tails wagging above the surface. Of course I knew these were the tails of the deer and that they had dug themselves into the snow to find the moss. I had seen them this way very often, but I can never help laughing at the sight.

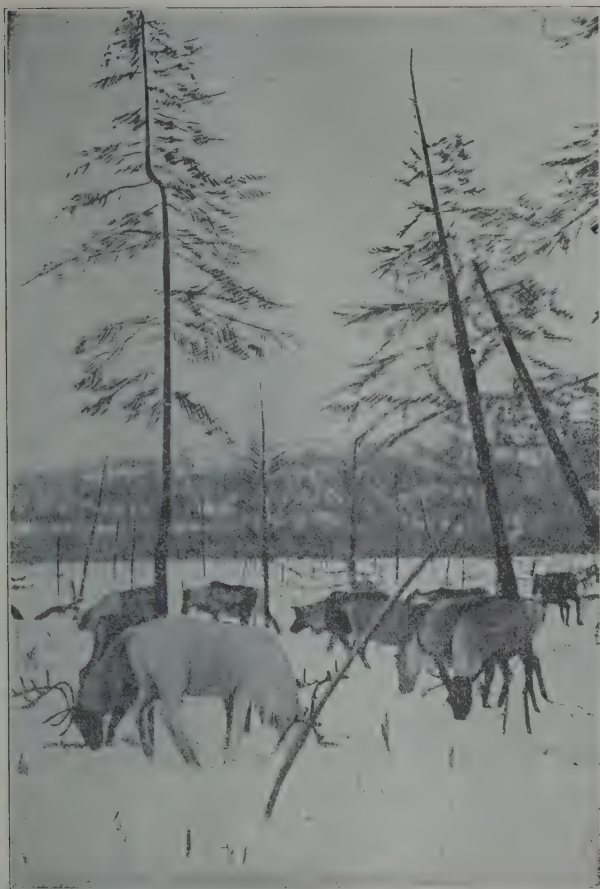
23. “I was so eager that I did not notice where I was going and fell into one of the holes, and had a hard struggle climbing out. The noise I made caused some of the deer to scramble out too, and I soon found the one I was after.

24. “It did not take long to cast the lasso over his horns. He came along quietly enough, and we soon reached home.

25. “I put the collar around his neck. Then I took the long strip of deerskin, fastened one end to the collar, ran it between his front legs and between his hind legs, and tied the other end to the ring in the front end of the sled.

26. “Father held the deer so he could n’t run away.

27. “I next tied another long strip of deerskin to his



Courtesy American Museum of Natural History, New York

A WINTER PASTURE

How do the reindeer find their food in winter?

horns. This was to drive with. When you throw it over the left side, the deer stops. When it is on the right side, he goes faster. The other end I wound around my right hand and got into the sled.

28. "Father let go of the deer and in a flash we were off.

29. "A reindeer sled is like a small boat on runners and it tips very easily. As this was my first ride alone, over I went before we had gone far. I had been in too much of a hurry when I fastened the rein about my hand



A SUMMER HOME IN LAPLAND

Make a tent like this on the sand table.

so it became unfastened after I had been pulled through the snow for a short distance. This released the deer and he was soon out of sight.

30. "My older sister is a very skillful driver. She had expected the very thing that happened, and was ready with her own reindeer to start in pursuit. After a while she appeared in the distance returning with my deer and

sled. You may be sure that next time I fastened the rein tight about my hand so that, if I tipped over, the deer could not get away.

31. "I had to try many times before I could drive the best of our deer, for some of them are very swift and at times headstrong. But there is no fun equal to that of riding over the snow behind a deer that travels fifteen miles an hour, and carries you a hundred miles a day."

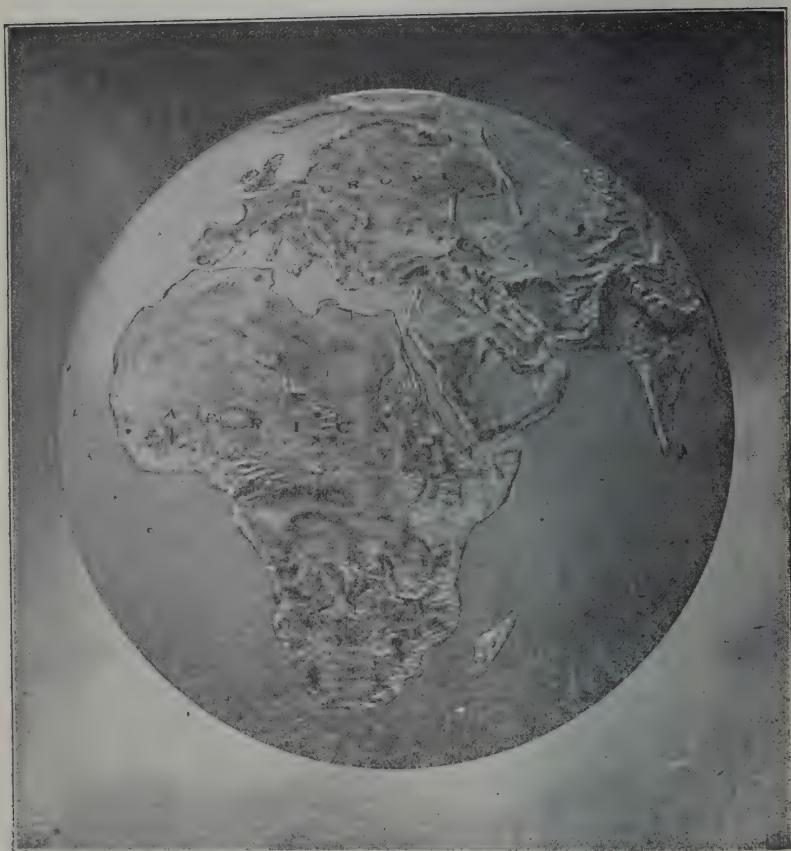
FOR PUPILS' STUDY

1. Find on the globe the home of the Lapps.
2. In what continent is it?
3. Is there a country near there that you have read about in the previous chapter?
4. In what direction is it from your own home? Across what ocean must you sail to reach it?
5. What makes a man wealthy in our country? What makes him wealthy in Lapland?
6. What makes Lapland a good place for reindeer? Read in your geography, or other books, about reindeer in Alaska; in Labrador; in Siberia.
7. What do the Lapps have to sell? What do they need to buy? What do the farmers that you know have to sell? What do they need to buy?
8. Why do you suppose the Lapps do not put their reindeer in barns at night, and why do they not put fences around the pastures?
9. Describe for Nils some exciting adventure you have had—a sleigh ride; an automobile ride; a ride on a load of hay; harnessing a colt, etc.
10. Which do you think is more useful, the Eskimo dog or the reindeer?

CHAPTER VI

A COUNTRY OF MOUNTAIN PASTURES

1. To reach this wonderful country about which we are now to read we must go to one of the large seaports on the eastern coast of our own land. Here are steamers



Courtesy American Museum of Natural History, New York

EUROPE, AFRICA, AND ASIA

Important locations — The three continents; Atlantic Ocean; Indian Ocean; Northern Ice Cap; British Isles; France; Alps Mountains; Mediterranean Sea; Sahara Desert; home of the reindeer; home of the camel; home of the elephant; Equator.

that will take us across the Atlantic Ocean to the northern shore of France. This is the same continent in which the Lapps and their reindeer live. But instead of going north towards Norway and Lapland, we will take a train that carries us southward to the middle of the continent.



A PASTURE HUT

Notice the stones that hold down the roof. The mountain in the background is the Jungfrau. What does Jungfrau mean?

Here is a very, very small country, packed full of tall mountains that rise like church spires, some of them so high that their tops are always covered with snow. These mountains are called the Alps and the country is Switzerland, the home of the Swiss people.

2. The Swiss people love Switzerland as we love our own country, as Nogasak loves the wide stretches of snow and ice around her home, and as Nils loves

the moss-covered plains in the land of the reindeer. This is a part of one of the songs that is sung in Switzerland:—

3.

SWISS HOME LAND

O Switzerland, my home land,
 What can more fair be seen?
 The snow-tops shine in the glow of the sun,
 Where else can be found such a garland of mountains?
 All hail! All hail! All hail!

4. Mothers and little sisters often put the babies to sleep with this lullaby of the pastures.

SWISS LULLABY

Sleep, baby, sleep:
 Your father tends the sheep;
 Your mother shakes the branches small,
 Whence happy dreams in showers fall:
 Sleep, baby, sleep.

Sleep, baby, sleep:
 The sky is full of sheep;
 The stars the lambs of heaven are,
 For whom the shepherd moon doth care;
 Sleep, baby, sleep.

Sleep, baby, sleep:
 I'll give you then a sheep
 With pretty bells, and you shall play
 And frolic with him all the day:
 Sleep, baby, sleep.

Sleep, baby, sleep:
 And do not bleat like sheep,
 Or else the shepherd's dog will bite
 My naughty, little crying spright:
 Sleep, baby, sleep.

Sleep, baby, sleep,
Begone, and watch the sheep,
You naughty little dog! Begone,
And do not wake my little one:
Sleep, baby, sleep.

5. Because they love their mountains so much, we shall not be surprised to find that they have given some of them human names. One that seems to have on its



THE MATTERHORN

This is the grandest of all the Alps Mountains. The little river flows from the melting glaciers on the mountain-sides. The village on the right has hotels for travelers. Note the steep mountain behind the village. The farms are on the left. How many groups of farm buildings can you see?

top a priest's hood, they have called *The Monk*. Another, that suggests a proud and haughty woman, they have named *Rigi*, which means *The Queen*. To one that is particularly beautiful and beloved, they have given the name *Jungfrau*, or *The Young Maiden*.

6. This is the land where William Tell lived long ago.

Every Swiss boy and girl knows the story of this hero; how he refused to bow to the hat of the cruel tyrant who ruled his country; how, as a punishment, the tyrant commanded him to shoot an apple with his bow



WILLIAM TELL AND HIS SON

Over his shoulder Tell carries the crossbow with which he shot the apple from his son's head. Father and son are walking over the rocks of their mountain country and a beautiful view of their home land is seen behind them.

and arrow from the head of his little son; how the arrow pierced the middle of the apple without harming the boy; and how he escaped and afterward drove the tyrant from his country.

7. Here were born those brave men who died rather than desert the French king whom they had promised to defend. In the side of one of the mountains a dying lion has been carved to recall their courage and faithfulness.

8. Here, too, we may visit the monks who have devoted their lives to caring for travelers who lose their way among the mountains. Their noble St. Bernard dogs go out in all kinds of weather and bring back to the care of the monks those who are dying of hunger and cold.

9. So the Swiss people, strong and brave, and inspired by the story of those who have died for their country in the past, are ready at any time to give up their own lives

to keep it. This is one of the songs that the children learn at school and that is often heard among the mountains, sung by some shepherd boy as he watches his sheep.



THE LION OF LUCERNE

The lion represents the strength and courage of the Swiss people. The shield, spear, and battle-axe indicate that these people are ready to fight for what is right. The lion has been killed by the spear broken off in his side. The Swiss Guard, whom this monument honors, was killed defending the King of France in the French Revolution.

10.

SWISS SONG OF FREEDOM

To me belong these rocks, to me this stony soil;
Here I walk with a firm foot.
For this is the land of my fathers,
And for it I owe nothing to any man.

These fields and these pastures,
To me alone they belong;
As a free citizen I exercise here my rights,
I am king over all that I own.

Free I came into the world,
Free I have labored for my daily bread,
Free, too, I sleep under the eternal stars,
And free will I end my days.

11. But in a land of steep mountains and of glaciers there are many dangers. Rocks are always tumbling down the mountain sides. The roar of mountain torrents and the grinding and groaning of the slipping glaciers never ceases. Many of the cottages on the mountain sides, and many of the villages in the valleys, are ever in danger of being crushed or buried by avalanches of earth, as a part of the village of Elm was not many years ago.

THE AVALANCHE AT ELM

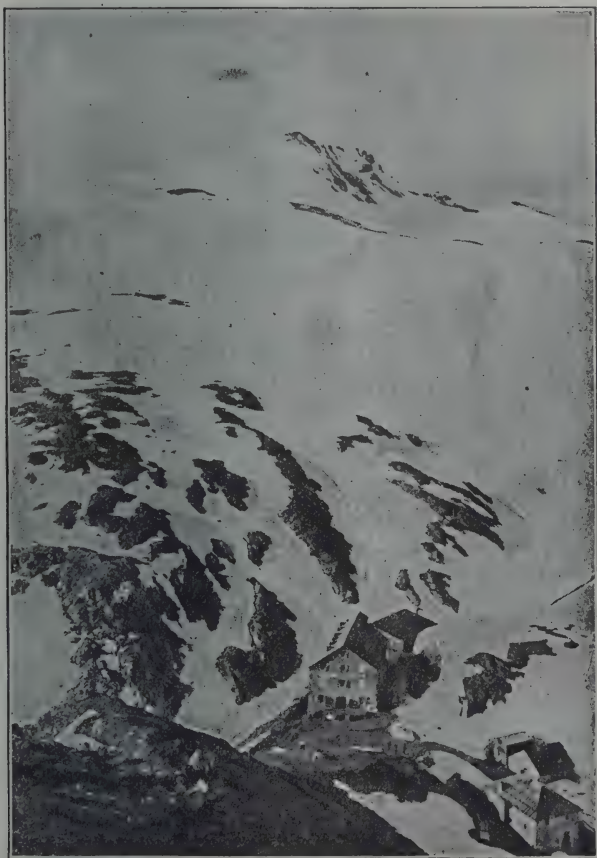
12. On the side of one of the high, steep mountains of Switzerland rests the little village of Elm.

13. In September, 1881, heavy rains had been falling for several days. Large rocks were loosened by the water far up the mountain, and they began falling into the valley. As they did no damage, the people paid little attention to them.

14. But one Sunday morning, while the people of the village were getting ready to go to church, the mountain began to rumble and groan. It seemed to have become alive.

15. The children were full of excitement. They were eager to climb up the mountain to see what was happening.

16. Suddenly, without a moment's warning, a great



A HOTEL AMONG THE GLACIERS

It is in a country like this that the St. Bernard dogs live. They go out over the snow in winter to hunt for lost travelers.

mass of rocks, earth, and trees fell with a crash into the valley. Then a larger mass fell, filling the air with dust.

17. Before the people could recover from their surprise and terror, the whole upper part of the mountain-side began to move. Then it shot out into the air and across the valley as an angry beast leaps on its prey. It struck the opposite mountain and slid down its side destroying everything in its path.

18. Following the roar of the fall there was quiet for a few moments. Then there went up a great cry from all the valley, for many homes, many fields of ripe grain, many sheep and cattle, and many men, women, and children had been buried.

19. With such dangers surrounding them, we do not wonder that the little children are accustomed to offer this evening prayer:—

20. “Look kindly down, when we are sunk in sleep,
 And guard our roof.”

21. Yet the mountains are not always and everywhere cruel. There are many beautiful lakes on whose shores large cities are built. There are broad fields in the valleys through which run laughing streams of water. The lower parts of the mountains are clothed with forests. And the glaciers, ever sliding downward into the warm valleys, melt and send their waters to feed the great rivers of Europe.

22. And on the mountain-sides are the wonderful mountain pastures, where in summer time the people take their cows and goats and pigs. Wherever there is

a shelf of rock on which soil can gather, wherever there is a spot, big or little, where grass can grow, there will be found a pasture that in summer time is covered with



A MOUNTAIN PASTURE

Note the fir trees. the bare mountain-top, and the glaciers

long, juicy grass that cows and sheep and goats like so much. Here, too, in summer are bright-colored flowers, fragrant strawberries, and beautiful butterflies.

23. Some of these pastures are very small and the paths to them are so steep and rocky that even goats cannot climb to them. But men reach them with the help of their mountain sticks and cut the grass for winter food for the cattle. They carry it home in bundles on their backs or throw it down where women and children can gather it up.

24. In the language of the people of Switzerland, their pastures are called *olps*, and there are so many of them that the mountains themselves are called the Alps Mountains, that is, the *pasture mountains*.

25. Among these mountain pastures lived Nicholas and Gretchen, about whom we shall read in the next chapter.

FOR PUPILS' STUDY

1. Find Switzerland on the globe.
2. What large city in the United States, on the shore of the Atlantic Ocean, is nearest to your home?
3. In what direction from this city must you sail to reach Europe?
4. What in this chapter leads you to think the Swiss people love to sing?
5. Find the story of William Tell in some book and tell it to the class.
6. Find the story of the "Swiss Guards" and tell it to the class.
7. In what particulars is Switzerland different from the part of the country where you live?
8. Why are the mountains of Switzerland called the Alps?
9. Read to the class the poem you like best.
10. On the sand table make some mountains that are like the Alps. Draw similar ones on paper or the blackboard.

CHAPTER VII

IN THE MOUNTAIN PASTURES WITH NICHOLAS AND
GRETCHEN

1. ON the steep, rocky side of one of the Alps a Mountaineer once built his cottage. Across the valley could be seen a white river of ice slowly creeping down-



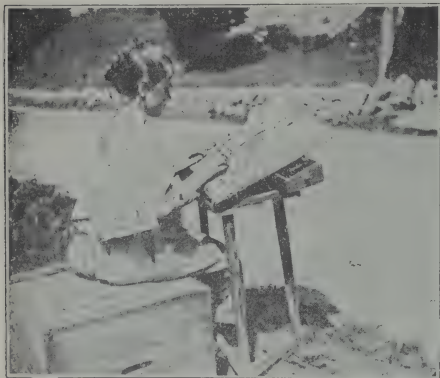
FARMHOUSES IN A SWISS VILLAGE

The farm animals are kept under the living rooms in winter. All the stairways are on the outside of the houses.

wards from the cold mountain-top. Not far from the cottage flowed a roaring, mountain torrent.

2. Here lived Nicholas and Gretchen. All winter they had walked down the steep road to the village to attend school. Before and after school Nicholas had helped gather firewood from the neighboring forest. He had

done his share of feeding and caring for the cows and sheep and goats, and in the long winter evenings he had learned how to carve pretty things out of wood. Gretchen, too, had helped in the work about the house



MAKING LACE BY THE ROADSIDE

This is a picture of one of the busy little girls in Switzerland. Probably her father and brothers are away in the mountain pastures. How do you know that this picture was taken in the summer time?

and had knitted several yards of beautiful lace to be sold in the city.

3. Before they quite realized it, spring had come. The snow was melting around the house. The first flowers were appearing through the brown grass. The animals were sniffing the air from the mountains as if they smelled the

fragrant grass and the flowering herbs that waited for them in the pastures. And, when the sun began to shine into the valley early in the morning, the roosters and hens and pigs, that occupied the room directly under where the children lay in bed, became so noisy with their crowing and cackling and grunting that there was no use trying to sleep.

4. All these were signs of spring, and the day was at hand when Nicholas was to go with the herdsman to drive the animals to their summer pastures. Gretchen was to stay at home to attend school a while longer and

then to help gather the hay in the meadows and care for the garden.

5. Nicholas and Gretchen knew how to write and they agreed to exchange letters while they were separated. Two letters have been selected for you to read. They will show you how many of the children in Switzerland spend their summer, and they will help you understand how important the mountain pastures are in this country.

“July 1, 1914.

“*Dear sister Gretchen:*—

6. “I wish you could be with me to-day. The snow tops of the mountains shine in the sunlight. The air is so clear that I can see across the valley where other herders are tending their cattle, and I can hear them shout and sing and blow their alp-horns.

7. “The pasture where we are is about halfway up the mountain. The grass is very plentiful and juicy this summer, and the animals are all in fine condition.

8. “I will tell you how I spend my time here, and you will see that I am not lazy. One day is about like another, whether it rains or shines, and so, if I tell you about yesterday, you will know what I do every day.

9. “Our hut is one large room with a big fireplace. It is made of logs and rough boards, and the roof is kept from blowing away by the heavy stones we put on it. In stormy weather the wind and rain come in through the cracks, but by bed-time we are tired enough to lie

down on the soft sheep skins and sleep soundly whatever the weather.

10. "In the morning we are up at sunrise. We must first milk the cows and the goats. As there are a hundred cows and twenty goats, this takes some time.



A PASTURE ON THE MOUNTAIN-SIDE

Find the glacier in the background.

When it is done, we are ready for breakfast with a good appetite, I assure you.

11. "The animals are now driven out to feed in the pasture. They seem to like best the grass and the sweet flowering plants that grow close to the glaciers. One must watch the sheep and cows to see that they do not wander too near the steep rocks and fall off.

12. "The rest of us spend the day taking care of the

four children of the milk, as we call them. You know what these four children are — butter, whey, cheese, and pigs. Pigs are the fourth child of milk because they drink all that is left after butter, whey, and cheese have been made from it.

13. “So we put some of the milk into the churn that looks much like a big barrel. It is connected by a beam with a water wheel set in the swift stream that flows near our hut. This stream comes from the glacier. It supplies us with water to drink and it also churns our butter.

14. “We take the rest of our milk and make it into cheese. We shall have hundreds of pounds of butter and hundreds of cheeses to divide among the herdsmen at the end of the season.

15. “We do not neglect the pigs. They must be fed and watched too, or they will wander off and be lost, or fall over the steep rocks and be killed.

16. “At evening the cows come back from the pastures to eat the salt they find ready for them, to be milked, and to lie down for the night near the hut.

17. “In this way the days have gone by and now it is time to send the goats to the highest pastures near the top of the mountain. The way up there is very steep and the pastures are dangerous for any but the goats, so the cows and sheep will remain here. But the grass on these high pastures is so sweet and fattening that the goats go there for a month each year. By the first of August the snow and the cold will drive them down to

this pasture again, and then, in a few weeks, we shall all be going back home for the winter. I am already beginning to wish that that time had come. But it is glorious up here and we often sing:—

18. "THE SONG OF THE HERDSMAN

"No life like the herdsman's, so lusty and fair,
Breathing, enjoying the sweet mountain air;
With the sun in the morning he rises and swells
With joy as he hears the gentle cow-bells.
And sounds he his alp-horn, its music is borne
Away down the valley on the wings of the morn;
He feels such accord with nature around,
It seems in the Alp alone gladness is found.

"Your affectionate brother,

"NICHOLAS."

19.

"September 1, 1914.

"*Dear Nicholas:*—

"It is almost time for you to come back home. We shall be so glad to welcome you, and are already making plans for the festival in honor of the return of the cattle and herdsman. It will be as gay as the day last May when you went away to the pasture.

20. "You remember that day, do you not? All the cows in the village were brought together, a hundred of them, and fifty sheep and twenty goats, besides the pigs. We put wreaths of flowers around the necks of the cows, and all the men and women and children wore their best clothes and carried flowers and banners.

21. "Then old Melchior, the head herdsman, led the queen cow with her bell tinkling at every step and all

the rest followed. The little cart piled high with provisions, bedding, and kettles, drawn by the horse, came slowly after. How we shouted and sang as we followed you part way up the mountain. And now you will all be back in a few days.



A DAIRY FESTIVAL

The Swiss people have many festivals. At some they have shooting-matches, wrestling, throwing stones, singing, dancing, contests in playing the Alpine horn, and in winter all kinds of winter sports. This is a picture of the festival in honor of the cows, which are so useful in Switzerland.

22. "But you must not think I have been idle all summer. Since school closed I have worked every day in the garden. You will see a fine pile of potatoes and vegetables when you get home. When the hay was ripe on the mountain-side, father took his scythe every pleasant morning and climbed up where the best grass was growing. As he swung his scythe over the side of the

steep rocks, bunches of fragrant grass came tumbling down where mother and I were waiting to receive them. We spread the grass out to dry and towards night heaped it together into two piles, one pile mother put on her head and the other I put on mine, and so we brought it home. In this way we have harvested enough hay to feed our cows and sheep and goats all winter.

23. "Then there have been wild strawberries to pick and carry to market, and on stormy days and in the evenings mother and I have woven cloth out of the sheep's wool and goat's hair, and have made the cloth into warm blankets and clothes for us to wear in the winter.

24. "But you shall see all that we have done when you come home. Please come soon.

"Your affectionate sister,

"GRETCHEN."

FOR PUPILS' STUDY

1. How did Nicholas and Gretchen spend their time during the winter?
2. What are the signs of spring around the home of Nicholas and Gretchen? What are the signs of spring around your home?
3. In what kind of a house does Nicholas live in the summer? How does he spend his time? What is the most interesting thing he does? How is butter made in Switzerland? How is cheese made? Have you ever eaten a piece of Swiss cheese? Ask your grocer to show you a piece.
4. When does winter begin near the top of the Alps Mountains? When does it begin halfway up the mountains? When does it begin in the valley?
5. If you should meet Gretchen, what could you tell her about your own summer vacation that would interest her? What does she do that you could not do?

CHAPTER VIII

TO THE HOME OF AHMED, SON OF THE DESERT

1. AHMED is a Mohammedan boy. He lives far out in the Desert of Sahara, on a little green spot, called an oasis. Beyond the narrow circle of the few farms and the one village of this oasis, there stretch, as far as he can see, nothing but brown sand and the blue sky.

2. Before we visit Ahmed we shall want to know in what part of the world this desert home is. We may find it by traveling south from the home of Nicholas and Gretchen, across the Mediterranean Sea, to the northern part of the continent of Africa.

3. We have come to the edge of the Torrid Zone or hot belt that extends around the middle of the earth. It was while sailing across this zone, on his way to the South Pole, that Colonel suffered so much from the heat.



A SON OF THE DESERT AND HIS FATHER

4. From one of the large cities on the coast of Africa we take a train that will carry us across a beautiful fertile country to the mountains that we saw in the distance when we were sailing towards the shore. It is hard to believe that behind these mountains, covered with vineyards, orchards, and forests, is hidden the largest desert in all the world.

5. Through this wall of mountains surrounding the desert rivers have cut narrow valleys here and there. These are called the *gateways* to the desert. The one through which we pass is the most beautiful of them all. Shrubs, grass, and flowers grow on the river banks. The songs of birds fill the air. It seems like fairyland.

6. But we go around a bend in the valley and the desert lies before us. At our feet, to be sure, is a carpet of green grass, sprinkled with bright-colored flowers; but a little way beyond, the river is swallowed up in an ocean of sand on which only bunches of sage and thorn bushes struggle for life. This desert covers as much of the earth's surface as our own great country, the United States.

7. The sand seems to be creeping towards us. It seems to say, "We shall cover you up. We shall cover you up." And that is what it is trying to do to everything it can reach. Everywhere in the desert the struggle is going on between the sand and all living things. It even tries to climb up the sides of the mountains and to reach the fertile fields beyond. It would certainly overcome us and bury us if we tried to go into the

desert on foot. Our safe way is to go on the back of the desert animal, the camel. He is sometimes called "the ship of the desert." He will bear us safely over this ocean of sand.

8. But we should not travel alone. The way is long: there are neither roads nor signposts, and there are dan-



HOLDING BACK THE SAND

The wall of clay is built to keep the sand from creeping into the oasis.

gers. We must join a caravan, a company of travelers, if we would go comfortably and safely. While we are waiting for the caravan, we may spend the time listening to the story of this strange animal that nature has given to the desert people.

THE STORY OF THE CAMEL

9. The camel belongs to the desert as the Eskimo dog belongs to the Arctic regions, and as the reindeer

belongs to the moss-covered marshes of the north-lands.

10. How awkward and homely he is, standing there on his long crooked legs. He has a big hump on the top of his body. His neck is long and thin. His face does not look very intelligent or friendly. If you pat



A CAMEL

The camel that is standing has one leg tied so that he cannot wander away. Notice the long legs and large feet, the shaggy hair, and the solemn stern face. The camel on the right is ready to receive his load.

him he suddenly turns his face towards you, utters an angry bellowing sound and shows his teeth, as much as to say, "Let me alone!" In fact, that is just what he means. The people of the desert never try to make a pet of him.

11. But the very things that make him appear ugly are the things that are most useful to him. With his long legs he strides mile after mile through the soft,

yielding sand. His big feet are like rubber pads that spread out and keep him from sinking into it. In his hump he stores up nourishment that feeds his body when he can get little or no food on his long journeys over the desert. An armful of coarse straw, a few dry beans once a day, or the dry thistles that he nibbles as he walks along will keep him strong and well for many weeks.

12. To be sure, his hump is growing smaller, while he is fed so scantily, until the flesh is nearly gone from it. Then he must be allowed to rest in a good pasture until his hump becomes large and soft again. He needs this rest at least once a year.

13. Inside the big, ungainly body are many little pouches or sacks that hold water. These fill up every time he has a chance to drink, and they empty into his stomach when he is thirsty.

14. But this is not the whole story of the camel. In this country, where there are no cows, camel's milk is much liked and used by children and grown people. When he is too old to work, he is killed. His flesh is used for food. His skin is made into leather. The hair is shaved from the skin and woven into rugs and cloth for clothes and tents.

15. But here is our caravan. There are several horses, twenty camels, and six donkeys. Some of the camels and donkeys are loaded with our tents, our blankets, our sleeping mats and cooking utensils, and with bundles of

twigs to use as fuel. Water and food for the donkeys and ourselves we must also carry with us.

16. The water is in goat-skins that are sewed up like big bottles. When you want a drink, you must untie the neck of the goat-skin and pour a little into a cup. But be careful not to waste any, for it must last until we come to a desert spring, and this we may not do for several days.



A CARAVAN

This is the only safe way to travel in the desert.

17. A camel is led up for you to mount. The driver makes a sort of croaking sound and pulls the camel's head down. The camel grunts and growls and looks very cross, but after a time kneels down on his fore legs and pulls his hind legs under him. You put one foot on his neck and with a jump you are on his back. You must hang on tight when he rises, or you will be thrown off.

18. We start out over the desert. There is only the soft sound of the crunch, crunch of the camel's feet in the sand to break the stillness. We move along hour after hour. As the sun becomes hotter and hotter towards noon, we see the drivers take off one cloak after another until in the hottest part of the day they are wearing only one. We keep steadily on.

19. Towards evening the air becomes cooler and the drivers begin to put on their cloaks again, one at a time. When night comes they will have them all on, perhaps as many as six. Rolled up in them, they sleep comfortably through the chilly night.

A SAND-STORM

20. The second day of our journey we are overtaken by a sand-storm. It first appears far away, like a cloud. But it is coming towards us, and before we can realize what is happening, we are in its midst.

21. Sand fills the air. It blots out the light of day. We can hardly see the person next to us. Our eyes, our ears, our noses, are filled with it. It works between our lips and grits between our teeth. It blows down our necks and into our hair. The sharp grains scratch and cut our faces until they bleed.

22. And the wind howls and roars and hisses, while the desert groans and moans.

23. The camels can go no farther. They lie down and put their heads close to the ground. They close their eyes, which are protected by very long, thick eye-

lashes. They can close their nostrils also. Their nostrils and ears are provided with a hairy fringe that helps to keep out the sand.

24. The camel drivers wrap their long cloaks tight around them and lie down on the sand, huddled close to the camels. We follow the example of the drivers.

25. For a long time we lie there. The desert sand seems to have risen up to destroy us. We can feel it piling itself around us, and from time to time we try to shake it off.

26. But at last the wind dies down. The sand sinks to rest and the air becomes clear. We shake the sand from our clothes and hair. We wipe it from our bleeding faces. We rouse the camels and start on our way.

27. We now understand how sometimes an entire caravan is overtaken by a sand-storm that, lasting for a whole day or longer, buries and smothers men and camels in the sand.

THE ROBBERS

28. As our camels carry us along with stately tread, stopping now and then to nibble at a nearby clump of thorns, we spy again in the distance a cloud of dust. It comes nearer and nearer, and soon we see that this time it is not made by wind but by a band of horsemen.

29. There are a dozen of them riding on swift horses. The harnesses are bright with brass trimmings and gayly colored cloth. The riders themselves wear many yards

of colored cloth wound around their heads, and white, red, blue, or purple cloaks.

30. They spur their horses forward, and with a loud cry they rush towards us at a furious rate, waving their guns, swords, pistols, and spears. Brrr!—Brrr! sound their horses' hoofs on the sand. But at a sharp command from their leader, they stop, turn, and are soon lost in the distance.

31. These are desert robbers. It is well for us that we are more in numbers than they and that our camel drivers know how to keep the animals of the caravan under control for they are very terrifying as they rush at us.

A BEDOUIN CAMP

32. Our journey across the sands is about over, for there, on the horizon ahead of us, is an oasis. It is the one where Ahmed lives. One of the drivers spies it first. "Ho!" he shouts. "There is shade and rest, and gardens, and cooling waters." And then, we see it—first a speck, and then a line of green beyond the dazzling, burning sands.

33. As we approach the oasis we pass a camp of Bedouins. They are like gypsies, living in tents and moving from one place to another, as they will. Perhaps the band of robbers, that we met, was from this very camp; for they often attack and rob small caravans.

34. They live a lazy life with their goats and camels and dogs. They spin the goats' hair and camels' hair and

weave it into cloth. Some of the milk of their goats and camels they make into cheese and butter. They buy



A BEDOUIN CAMP

These are wild people who live in tents. The door of their tents is a palm leaf mat.

wheat and barley and beans which they grind into coarse meal and make into bread.

35. They are not friendly people and we quickly pass them by and enter the oasis.

FOR PUPILS' STUDY

1. Find the Mediterranean Sea on the globe. What continent is north of it? What continent is south of it?
2. Why shall we expect the Sahara Desert to be a hot place?
3. How does the Gateway to the Desert differ from the desert itself?
4. What place that you have seen is most like a desert?
5. How is a camel particularly adapted

to living in a desert? What other animals of which you have read give milk that is used by man?

3. What is a caravan?

7. What is the most interesting part

of this journey across the desert?

8. Read what your geography has to say about deserts in different parts of the world.

CHAPTER IX

WITH AHMED IN THE OASIS

1. THE road into the oasis is a narrow path shaded by palm trees. How cool it is here after our long, hot



ENTERING AN OASIS

journey. The scent of flowers and of fruit, the song of birds and the hum of bees, remind us of the beautiful gateway of the desert that we left a few days ago.

2. Our camels have not carried us far before children come rushing down the road towards us. Little brown

creatures they are with dancing eyes and loose, white or bright-colored cloaks floating around them. Some of the smallest have nothing at all covering their little bodies. They are shy, as well as lively, and scamper away like wild animals at our least movement. But, when they think they are well out of danger, we can see some of the boys at a distance turning somersaults in their excitement.

3. But we have come to an open green spot in a grove of palm trees. Here we stop and put up our tents, after the owner of the grove has given us permission.

4. As we sit under the trees, looking up at the bunches of brown dates ripening in the sun, a boy about fourteen years of age comes loitering along the path. We ask him to sit down and tell us about the palm trees. This is his story.

STORY OF THE PALM TREES

5. "My name is Ahmed," he began. "I was born in the desert, and so were all my people. I live in the brown plaster house yonder with my father, mother, grandmother, and sisters. We are very happy.

6. "These trees under which we sit are ours. In all the oasis there are hundreds of date palms. We own fifty of them.

7. "Our trees need much care and much water. There is an old saying in the desert: 'If the palm tree shall prosper, it must have its head in the fire of the skies and its feet in water.' In some of the oases the

roots of the trees reach down to the underground rivers, but we must water ours from the spring twice a week.

8. "Every one on the oasis has his share of water, just enough for the trees that he owns. The water is



WATER FOR THE PALM TREES

Find the spring from which the water flows. The house on the right is like the one in which Ahmed lives.

brought to the trees in ditches. These we must dig and keep clear of sand. I help in all this work and when harvest time comes I climb the trees and help bring down the bunches of dates.

9. "In October the dates are ripe. We have some trees that bear four hundred pounds of dates in one year. As they grow in bunches, ten to fifteen bunches

on a tree, you can understand that it is not easy work taking them down the long tree trunks. We must be careful not to drop them.

10. "After the date harvest is over we plant our garden among the trees and also on the edge of the desert.



A LOAD OF DATES

Dates are packed in bags and carried by the "Ships of the Desert" to the sea coast, whence they are sent to all countries. Note the baby camel and his little hump.

We raise barley, wheat, beans, tobacco, and many other things. I drive the camel at plowing time, and sometimes I hold the plow.

11. "And we must keep the sand from covering the plants. It is always trying to creep in and ruin our crops. When the wind blows hard, and especially during sand storms, we stick long rows of palm leaves along the tops of the sand piles. These stop the sand and our plants are saved.

12. "The palm tree is the desert tree, as the camel is the desert animal. We could not live in the desert without it. There are three things that we must have here: first, the springs of water; second, the camels; and third, the date palm trees.

13. "Most of the dates we sell to merchants who carry them across the desert in caravans, but some we keep for ourselves. When we go to my home you shall see how useful this tree and its fruit are to us. I think it must be the best tree in all the world."

14. Ahmed finished his story and we started along the narrow road to his home.

AHMED'S HOME

15. The houses of the desert are built of mud. Wood is so scarce that it is used only for beams and outside doors and occasionally for a shed. The clay is found under the sand. It is shaped into bricks which are dried in the sun.

16. The bricks are piled up to make the walls of the houses. Mud is then plastered over the bricks and over beams of wood to make the roof.

17. The outer walls of some of the houses are broken only by a doorway. If there are windows they are so small that you could hardly put your head out through them. The people of the desert do not like to have passers-by look in where they are living.

18. It is such a house as this that Ahmed invites us to enter. We pass through the door and enter a room. Here his mother sits in the middle of the floor grinding barley for the cakes that she will bake for the evening meal. His sister is sitting at a loom in one corner weaving cloth of camel's hair. His grandmother is crouched on the floor by a little fire holding the baby brother.

19. We are introduced to his people. They are very kind and welcome us with smiling faces.

20. Ahmed leads us about the house. He points out the hole in the roof where the smoke of the fire passes out, for there is no chimney. He shows us the other rooms of the house. There are only two. Instead of doors, they have a curtain of camel's hide shutting them off from the living-room.



A STREET IN AN OASIS

Notice the narrow roadway sloping towards the middle. Why is this? The wall on the right encloses a garden and at the farther end is a door. The walls and houses are made of clay. The men on the left have found a shady corner.

21. We are especially interested in the storeroom. In one place are piles of dates. In a corner lie bundles of camel's hair to be used in weaving. In another place there are baskets full of grain, and jars of water that have been filled at the spring. We also see some bundles of fibers that Ahmed says come from the palm tree, and a jar of date-seed oil.

22. While we are looking about, Ahmed tells us the rest of the story of the palm tree.

23. "Of course," said he, "we eat the soft part of the dates, but we do not throw away the seeds. We roast some of them and grind them up to make a drink that is almost as good as coffee. The rest of the seeds are ground finer into meal and pressed until the oil that is in them runs out. The meal is then fed to the camels, donkeys, horses, goats, and hens.

24. "When the palm trees are about a hundred years old, they do not bear much fruit. Then the leaves are pulled off and sap flows from the places from which they are broken. We drink the sap while it is fresh and use it for vinegar when it grows sour.

25. "Did you see those baskets and the mats on which the dates are piled? Those are made of palm tree leaves. Much of the twine and rope used in the oasis is made of fibers pulled from the trunk of the palm tree.

26. "I must not forget the palm cabbages. These are the big buds that grow at the very top of the tree. We cook them in a variety of ways.

27. "When a tree begins to die, we cut it down. Some

of the wood we use in building houses and some of it for fuel, although, for the most part, our fuel is the dried bushes that grow in the sand on the edge of the oasis."



THE TOP OF A HOUSE IN THE DESERT

Find the hole in the middle of the roof and the low wall to keep people from falling off. What do you suppose the tent frame is for and the ladder? Can you find the spout where the rain water drains from the roof? The domed building on the right is a little church.

28. After we have looked over the storeroom, we pass out into the little back yard. This is surrounded by a high wall. Here are kept the hens and chickens and the pigeons. Here also the babies play, and here, in the

hottest part of the year, the family cooking is done and the meals are eaten.

29. "Come up on the roof," says Ahmed.

30. We follow him up a narrow flight of stairs, also made of mud, and find ourselves on a flat roof with the hole in the middle that we had noticed from below. It



A MARKET-PLACE

Each merchant spreads his wares out around him and waits for people to come and buy. His first price is always more than he expects to receive.

would be easy to fall into this hole, but we cannot fall off the sides, for the walls of the house extend above the roof.

31. From here we look off over the oasis. There are many houses like the one in which Ahmed lives. A few are two or three stories high. Some of them cover a great deal of ground and are surrounded by groves and gardens. Ahmed tells us that these are the houses of the rich. Rising above the sand-colored houses are many

green palms, and beyond the circle of the oasis stretch the hot, brown sands of the boundless desert.

32. We learn that the family spends much time on the roof. The women come here to enjoy the view and the cool breezes at evening. Here, too, they receive their



A CHURCH IN THE DESERT

A priest goes to the gallery near the top of the tower five times a day and calls the people to prayer.

friends. The women stay at home most of the time, and when they go on the street they cover their faces up to their eyes with a veil. This is to prevent men who do not belong to their family from seeing them.

33. In the distance rises the round domed roof of the temple with its tall, slim tower called a minaret. Five times every day a priest goes up to a little gallery near the top of the minaret and calls the people to prayer.

Then all Mohammedans fall on their knees, facing towards their holy city, Mecca, and pray to their prophet, Mohammed.

34. Ahmed points out the bazaar, where the shops of



A SHOP OF BAZAARS

What things are sold here?

the village are huddled together, and the market-place, and says that a little way beyond the bazaar is the school that he used to attend.

35. We should like to visit these places but we want

still more to go to the spring from which the water flows that supplies all the oasis.

36. It is not far away and it is not hard to find, for boys and men and young women and old women are going to and from it almost all day. The women carry water jars on their heads and they sit about the spring in groups to talk. Now and then a caravan stops to water the camels, donkeys, and horses.

37. We sit down near the spring and Ahmed tells us

THE SECRET OF THE SPRINGS OF THE DESERT

38. "A holy man once lived in one of the oases with his people. In the middle of it was a spring of water that had flowed out of the sands year after year without ceasing. This spring had supplied water for the small gardens and the fruit trees. From it the women had taken water for all the homes of the village, and their few animals had come there to drink twice each day.

39. "There was no water for many miles in all directions, but the spring had never failed in the memory of the children or of their parents or of their grandparents. So they lived contentedly with never a thought that the spring would not always continue to give its sweet waters to them and to their children as it had to their ancestors.

40. "But one day the usual supply of water did **not** flow from the spring. The next day there was still less and the next day again still less.

41. "The people became alarmed. Their crops were drying up. Their animals were dying. Their fruit trees

were drooping. They must either prepare to leave their homes and go to some far-away oasis, or perish of thirst.

42. "The holy man grieved and suffered with his people, and he prayed to God for help.



A DESERT SPRING

What do you think the clay walls are for?

43. "In answer to his prayer he was shown that the water came from a great underground river, that the sand that was choking the spring must be dug away, and that a larger opening must be made in the hard clay and rock that he would find underneath.

44. "When the people were told this, they at once set to work. They dug the sand out of the spring until they came to the hard layer of clay and rock, just as it had been revealed to the holy man. They used chisels and pickaxes, and sure enough, at last out gushed a bountiful stream of clear, sweet water that has kept flowing to this day."

45. The holy man had found the secret of the spring, and from that time, whenever water begins to fail in any of the hundreds of oases of the Sahara, men dig away the sand and release again the hidden stream.

46. But there is yet another part of the secret of the springs that the holy man did not find out. Underneath the sands of the deserts are many rivers that begin far away on the distant mountains. The rain that falls on these mountains flows down their sides and finds its way into underground channels or tunnels. It flows on and on, often for hundreds of miles, before it comes to a crack in the hard layer of earth above it. Then up it bubbles in a spring. As soon as the cool water touches the dry, hot sand, plants and trees begin to grow. People gather about the spring, and by and by there are fruitful gardens, happy homes, and playing children where once was an empty desert.

47. Since the secret of the springs has been found out, people dig wells as they do in our country. In some places they find the hidden river only a few feet below the dry sand; and in other places they find it only after digging down a long way. But, wherever these wells

are dug, there a new oasis is made. In this way, new spots of green are caused to grow on the desert where people come and build new homes.



A SMALL OASIS

48. It is time for us to find our way back to our camp. To-morrow at daybreak we must bid good-bye to our desert friends and start on our return across the restless sands. But we shall not soon forget Ahmed, who lives under the spreading palm trees of the oasis.

FOR PUPILS' STUDY

1. What two things do date palms need in order to grow?
2. How are the trees watered?
3. What different kinds of work does Ahmed do?
4. What are the three things that people must have in order to live on the desert? Explain why each one of these is necessary.
5. We say in America that a man is rich if he has a great deal of money. What makes a man rich on the Desert of Sahara? What makes him rich in Switzerland? In Lapland? On the edge of the northern ice-cap and Labrador?
6. Tell how a house is made in the desert.

7. What interests you most about Ahmed's home?
8. Make a list of all the uses of the date palm tree. Perhaps you can find in other books uses not mentioned here.
9. Find in the library an account of a school such as Ahmed attended; a bazaar; and a market-place.
10. Tell in your own words the secret of the springs.
11. Make an oasis on the sand table with clay houses, palm trees, a spring and irrigation ditches.
12. Where does the water come from that you use at home? At school?
13. In some parts of our own country there are irrigated gardens and orchards. Where does the water come from?

CHAPTER X

PEDRO'S HOME AT THE EQUATOR

1. ON a globe we shall find a line half way between the North and the South Poles. This line passes completely around the globe and is called the Equator. You have read about it in the story of Colonel.

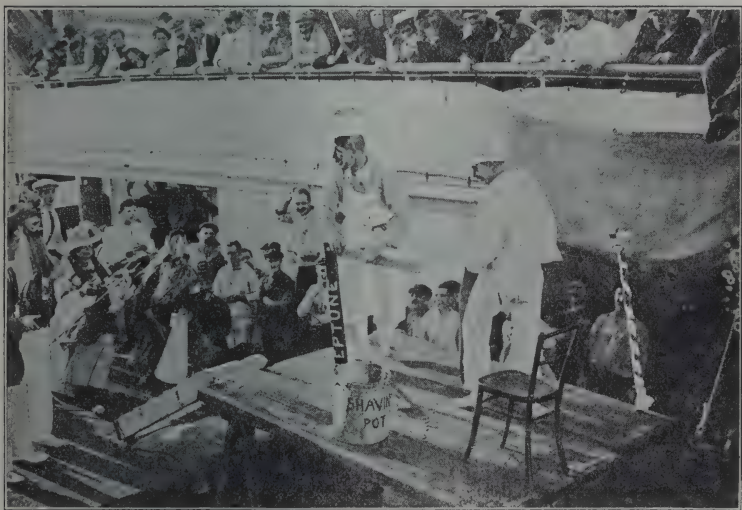
2. It used to be the custom among sailors to play rather rough tricks on those who were crossing the Equator for the first time. Once there was a cabin-boy, named Barney, on board a steamship sailing south on the Atlantic Ocean. He had always lived on the northern half of the earth. When the ship came to the Equator, Barney learned a lesson in geography, and this is the way he learned it.

BARNEY CROSSES THE EQUATOR

3. Barney had been told by the captain that the ship would cross the Equator sometime during the next day. The eventful day had come. He was up at sunrise and

every moment he could spare from his work he stood looking over the side of the ship "to see the Equator," as he said, when it was crossed.

4. So it was no wonder that he was greatly disappointed when, early in the afternoon, a sailor told him



CROSSING THE EQUATOR

Find the shaving pot, the razor, the King and Queen of the Ocean.

that the ship had already crossed it. Poor Barney went about his work muttering to himself, "It certainly is strange. I have often seen it on the map and I can't imagine how I crossed it without seeing it."

5. Meanwhile the old sailors were preparing their celebration. Early in the afternoon two of them appeared on deck dressed to represent the King and the Queen of the Ocean. Then came two others looking

like policemen. Another took the part of a barber. He had a pail of soft soap, a whitewash brush, and a big wooden razor. There were also several clowns.

6. Every one who had never crossed the Equator before must come before the King and Queen who were to decide what should be done to them.

7. Barney is the first victim. He is seized by the policeman. A bandage is tied over his eyes. He is brought before Neptune, the King, and his Queen.

8. "So," says the King, "you thought the Equator was a line, did you?"

9. Barney opened his mouth to say "I did think so," but before he could say more than "I," one of the clowns pushed a large bitter pill between his teeth.

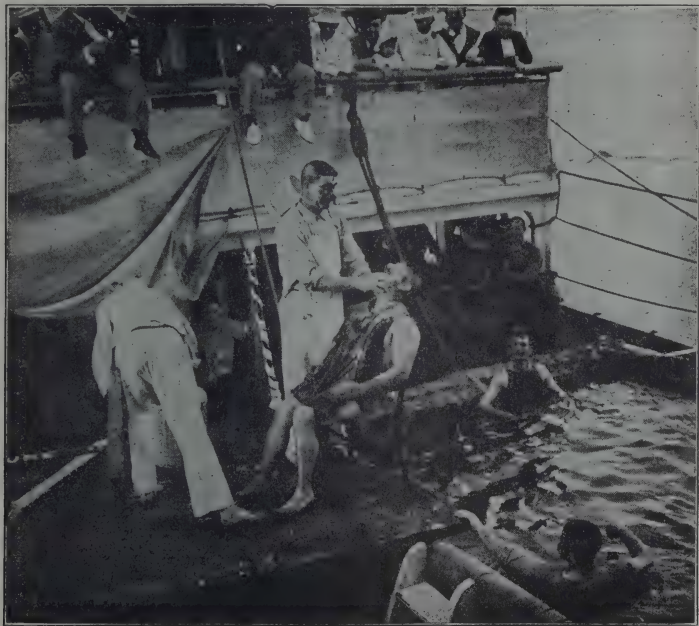
10. "You mustn't think it is a line any more. It's just land and water," said the King. "To help you remember it, the barber will shave you."

11. Thereupon, the barber poured a dipperful of soft soap on Barney's head, and then a dipperful of water and rubbed them together with the big whitewash brush until his head and face and neck were covered with lather. It ran into his ears and eyes and mouth and down his collar. He was really glad when the clowns suddenly tumbled him into a big tank of water that was standing ready. He floundered round until he could pull the bandages from his eyes. Then he jumped out and ran off to put on dry clothing, while the policemen went to find another victim.

12. This was a hard way to learn a geography lesson,

and Barney never forgot that the Equator is not a real line, but only an *imaginary* line that extends around the earth, halfway between the North and the South Poles.

13. Let us look again at the globe and find where the



CROSSING THE EQUATOR

Equator passes through the continent of South America. We shall see a river beside the Equator. It starts among the Andes Mountains in the west and flows east across the continent receiving the waters of many smaller rivers, until it enters the Atlantic Ocean directly at the Equator.

14. This is the mighty Amazon that carries more

water to the ocean than any other river in the world. The land through which it flows is low and marshy. It is in one of the very hottest parts of the earth. So, as plants and trees grow largest and most abundantly where there is the most heat and water, we shall expect to find on the banks of this river a thick growth of vegetation. And so we do. Here is not only the largest river, but the densest and most extensive jungle in the world.

15. Far up this river in the very heart of the jungle Pedro lives with his father and mother in their humble cabin.

16. We cannot possibly walk to Pedro's home, for the bushes, vines, and trees of the jungle make a tangle through which we could not force our way. The ground too is low and covered with water for many miles. There are no carriage roads or railroads. We must go up the river in a small steamboat or in a sailboat.

SAILING UP THE AMAZON RIVER

17. The mouth of the river, where we make our start, is so broad that from the middle we can scarcely see either bank. As we glide over its surface, we notice that the water is very dark. If we take some up in a dipper, the bottom of the dipper is soon covered with mud. This is the fine gravel, sand, and clay that the river is bringing from the Andes Mountains thousands of miles away on the other side of the continent. Some of the mud drops upon the banks of the river, filling the

low, marshy places and making new soil for the growing trees and shrubs of the jungle. Some is carried along by the swiftly flowing water far out into the ocean, where it sinks to the bottom and slowly builds up a bank that will sometime rise above the surface and make a new shore for the continent.

18. As we sail up the river, the banks come nearer together and we see many strange sights. There are lazy crocodiles whose sleepy eyes follow every movement of our boat. Monkeys chatter and bright colored parrots screech at us from the trees. Dainty humming-birds and large, gaudy but-

terflies flit about in the green foliage. Now and then a long snake goes swimming by and others are seen hanging from the limbs of trees. Vines cling to the tree trunks. They climb from tree to tree and creep along the ground, making a network through which even the wild beasts can scarcely make their way. We



SAVAGE PEOPLE ALONG THE AMAZON

catch glimpses of great bunches of beautiful flowers far up among the tree-tops.

19. But all this time we have seen no people. Are there none in the jungle?



Brown Brothers

A HOME ON THE AMAZON

Of what is the roof made? Of what are the sides of the house made? Find the stairs leading up into the house. Sometimes a ladder is used for stairs. How can you tell that this is a picture of a home in a hot part of the earth?

20. The jungle is a fine home for wild plants and trees and insects and reptiles and wild beasts; but it is not a good place for people. A few savages live in huts or in small villages. They spend their time in hunting and fishing and in making war on one another. They wear little or no clothing. They build

their huts out of the grass and palm tree leaves of the forest. Their food is wild nuts, wild fruit, roots of trees, and such animals and fish as they can catch. The jungle supplies their needs which are few. They live a lawless life with few pleasures and many hardships.

21. Besides these savage people, there are a few others who live in the jungle to collect the sap of the rubber tree. Pedro's father and mother had sailed up this river a long time ago to collect rubber for a company that sends it to our own country, where it is made into coats, boots, automobile tires, and all the other rubber things with which we are familiar.

22. We are just coming in sight of his home. It is a little hut raised three or four feet from the ground. In one room the family eat, sleep, and live. It does not look like a very comfortable home: but here Pedro was born and he is quite satisfied and happy.

23. Around the house the trees and brush have been cut away and there is space for a little garden. A few hens are roaming about and a little yellow dog barks at us as we approach. The dog and the parrot are Pedro's playmates.

24. And here is Pedro, a boy about fifteen years of age, and his father and mother. They are kind people and welcome us gladly, for visitors seldom come to this home.

FOR PUPILS' STUDY

1. Where is the Equator? What is it? Through the middle of what zone does it extend?
2. In what continent is the Amazon River?
3. Find the Andes Mountains on the globe.
4. Find the mouth of the Amazon River. In what direction does this river flow? Into what ocean?
5. What place, that you have seen, is most like a jungle? How does a jungle differ from a desert?
6. What two things are necessary for a real jungle?
7. What interests you most in the sail to Pedro's home?
8. In what country does Pedro live?
9. On the sand table make a house like those in which the savages of the jungle live.
10. Make a list of the new words used in this chapter.

CHAPTER XI

A DAY WITH PEDRO IN THE JUNGLE

1. WE can spend only one day with Pedro and we must make the most of it. So we are up at break of day. The mother makes some cakes of meal mixed with oil and this, with a drink of sap from the cow tree, is our breakfast.

2. Pedro takes his gun, his long sword-like axe, a little hatchet with which he taps or gashes the rubber trees, and a gourd in which to bring back the sap.

3. We leave the little clearing and are at once in the dense jungle. There are no roads, only narrow paths that have been cut through the tangled bushes and vines. We cannot lose our way, because the growth of trees and bushes makes a wall of green on both sides of the path.

4. The way is long, for many trees must be visited before noon. The rubber trees do not grow near together. They are scattered through the jungle. From one to another a narrow path is made. It runs through



Courtesy American Museum of Natural History, New York

AMONG THE RUBBER TREES

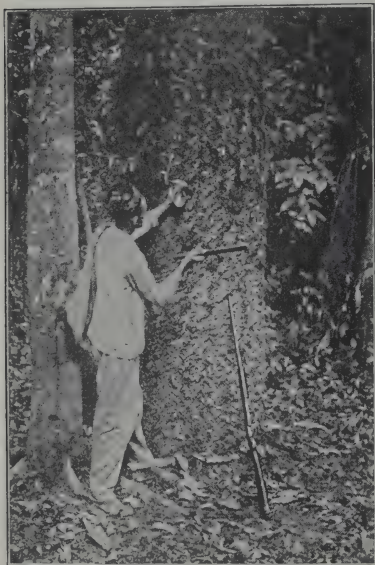
Through such places as this Pedro goes in search of the rubber trees.

thick bushes, and across swamps and muddy streams where poisonous snakes and hungry crocodiles make their homes.

5. After a while we reach the first rubber tree. Pedro finds some tin cups that he keeps by each tree. With his little hatchet he makes a gash in the bark of the tree and the milky sap begins to flow. He attaches one of the cups to the tree in such a way that the sap runs into it. Four or five gashes are thus made around the tree. A cup is fixed to each gash, and we are off to the next tree.

6. We go from tree to tree until we have visited a hundred or more.

7. The sap stops running after three or four hours and it must be collected and taken home. So we go back to each tree and empty the little cup into the gourd. The cups are put in a safe place to be used again to-morrow.



*Courtesy American Museum of
Natural History, New York*

GATHERING SAP FROM A RUBBER
TREE

Find the little cups into which the sap runs.

8. By the time we have collected the sap from all the trees the sun is almost overhead and we know it is about noon. We retrace our steps along the same narrow, shady paths and are soon back in the clearing.

9. Pedro has pointed out to us many interesting things. We have seen the coconut palm with its clusters of nuts high in the

top. We have gathered the fruit of the bread tree, which is roasted or boiled and used instead of bread. We have found a cow tree and tasted some of its sweet milky sap. We have passed a rain tree and seen the water dripping like a shower from the ends of the leaves.

10. Insects swarm everywhere in the jungle. Many of them are very troublesome, especially the mosquitoes. Butterflies large and small, some of them most beautifully colored, fly in and out among the trees. Ants seem to be everywhere. We lean against a tree and they cover us. We stand on a decaying log: it is certain to be filled with them, and they rush out in great numbers to attack us. We are stopped by an army of them marching through the jungle in regular regiments with officers and scouts. Some of them live in very curious mounds of clay which they build as tall as a man. We pass through a village of these mounds.

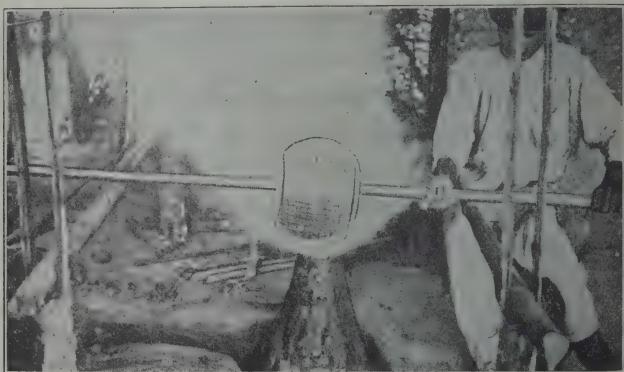
11. An hour's walk through this wonderland brings us back to the hut. Our dinner of breadfruit and turtle meat broiled over the fire is soon finished, and Pedro and his father prepare to smoke the rubber sap.

HOW RUBBER IS MADE

12. A little fire is built in a hole scooped out in the ground. Upon this fire some palm nuts are placed. These soon begin to give off a dense smoke. A funnel of dried clay is placed over the fire, and the thick smoke rises through it.

13. Pedro's father takes a flat stick and dips it into the rubber sap. He holds it over the funnel, twirling it about rapidly. In a short time the sap has changed to thick rubber. Pedro pours a little more sap on this rubber and it is twirled again in the smoke. Little by little all the sap is made into rubber in this way. When the

rubber on the stick becomes a good-sized ball it is put aside and a new ball is started. These rubber balls are later sent down the river to be shipped to the United States and other countries.



Courtesy American Museum of Natural History, New York

SMOKING RUBBER

14. The day's work is done, unless the little garden needs tending, or palm nuts are to be gathered, or wild animals are to be snared in the jungle, or fish are to be caught in the river.

15. To-day we do none of these things but mount the ladder into the house. Some of us lie down in the hammocks and others sit on the floor while the mother weaves a mat of dry grass as she tells us stories about the jungle. One of the most interesting of them is about a turtle. A turtle is called a *jaboty* by the people who live in the jungles of the Amazon.

A STORY ABOUT A JABOTY

16. "One day a Jaboty came to a palm tree where some Monkeys were eating coconuts.



Courtesy American Museum of Natural History, New York

READY FOR MARKET

The cakes of rubber are brought to the mouth of the Amazon to be sent to different countries.

17. "‘Hullo, Monkeys!’ said the Jaboty, ‘what are you doing up there?’

18. "‘We are eating coconuts,’ replied the Monkeys. ‘Throw me down some,’ begged the Jaboty.

19. "‘No,’ said the Monkeys, ‘we will not throw you down any nuts, but we will bring you up here and you can eat all you want.’

20. "So they ran down to the ground. They took the Jaboty by his four legs and carried him to the top of the palm tree. They put him on a bunch of coconuts and scampered off over the tree-tops, chattering and laughing in great glee.

21. "Monkeys are very foolish and have very short memories, and they soon forgot all about poor Jaboty in the palm tree.

22. "The Jaboty ate his fill of coconuts and then began to look about for a way to get down. He called to the Monkeys, but they were far away and did not hear. He asked the Parrot, the Butterfly, the Partridge, the Pigeon, the Humming-bird, the Bat, and even the Snake, the Ant-eater, and the Crocodile, but not one could tell him how to get down.

23. "At last a Jaguar passed under the tree. He looked up and saw the Jaboty sitting high over his head.

24. "'Hullo, Jaboty,' said the Jaguar, 'what are you doing up there?'

25. "'I am eating coconuts,' said the Jaboty.

26. "'How did you get up there?'" said the Jaguar.

27. "'I climbed up,' replied the Jaboty.

28. "'Oh, Jaboty, throw me down some coconuts,' pleaded the Jaguar.

29. "'All right, I will,' said the Jaboty, 'if you will place yourself right under me where you can catch them.'

30. "So the Jaguar stood directly under the bunch of coconuts. Then the Jaboty slipped off and fell on the Jaguar's head. The Jaguar was so stunned that he lay there a long time. When he came to himself the Jaboty had crawled away and hidden himself in the jungle. So the Jaguar had to go on his way without his anticipated feast of turtle-meat."



Courtesy American Museum of Natural History, New York

ASIA

Important locations — The continent; Northern Ice Cap; Indian Ocean; Pacific Ocean; India; Ceylon; China; Japan; Australia; Philippines; home of the elephant; Equator.

FOR PUPILS' STUDY

1. What different kinds of food does Pedro have to eat?
2. Make a list of all the jungle animals that are mentioned. Which would you recognize if you should see them?
3. How is rubber sap collected?
4. How is the sap changed to rubber?
5. Name all the different things that you know which are made of rubber.
6. Tell any story that you know about animals.
7. From the library get one of the books by Joel Chandler Harris called "Uncle Remus Stories." It has interesting animal stories.
8. Make up a fable that Pedro would like to hear about some animal that you know.

CHAPTER XII

TROPICAL GARDENS

1. IF we travel around the earth along the Equator, we shall pass through many jungles. Across the Atlantic Ocean, opposite the mouth of the Amazon River, are the great jungles of Africa. Through these flow the Congo River, which is almost as large as the Amazon.

2. In the jungles along the Congo we should meet the gorilla, the rhinoceros, the hippopotamus, the wild elephant, and also most of the animals to be found in the jungles of the Amazon.

3. The people here are savages like those along the Amazon, so we shall hurry across this continent until we come to the Indian Ocean.

4. All the rest of the way around the earth to those snow-capped mountains from which the Amazon River receives so much of its water, the Equator passes through islands and oceans. The islands are like pearls strung on

the Equator, although many of them are very, very tiny and lie scattered about in the ocean as if they had fallen off the string.

5. One of them is a little pear-shaped island called Ceylon. It lies close to the continent of Asia a little north of the Equator. It looks like a tear dropping from the nose of India. From this island comes the famous Ceylon tea, and cinnamon spice that mother often puts into pies and cakes to give them flavor.

6. The greater part of Ceylon is covered with jungles, but the people who lived there more than two thousand years ago learned how to clear them away and plant in their place the beautiful gardens for which the island is famous.

7. Most of the people live in villages. The one that we are about to enter is on the edge of a jungle. The people call it *Garden of Flowers*. It is a strange village, because when we reach it, it is nowhere to be seen. Not a house is in sight. But narrow paths wind in and out among the trees, and if we follow one of these it



COCONUT PALM TREES

will lead us between rows of bushes into an open place. Here, half hidden by palm trees and clambering vines, is a little one-story house covered on the sides and roof with long grass or palm leaves. All the houses of the



A GARDEN IN CEYLON

This is a glimpse of one of the most beautiful gardens in the world. A bunch of bamboo is growing in the foreground. For what is bamboo used?

village are like this one, hidden away behind tall, green hedges in the midst of a little garden of flowers.

8. The cleanest and freshest of them all is the home of Matthes, the elephant driver, his thrifty wife and his little daughter, Dochie. She is a brown-skinned, tropical fairy not more than twelve years old. It is easy to become acquainted with her, for she is a gentle, friendly little girl.

9. She brings us some cool coconut milk in a half-coconut shell. We sit down by the door, and at our request, she tells us about the tree which is so common throughout the tropics.



A HOME IN CEYLON

This house is not exactly like the one in which Dochie lives. All the houses in that country are not alike any more than they are in this country. Perhaps you can make a little house like this for the sand table.

STORY OF THE COCONUT PALM

10. Said Dochie, "I think we could get along very well, even if all the other things in the world were destroyed, provided we could have the palm tree. It gives us food and drink. We make our houses of it and we could easily make our clothes of it also.

11. "Father built this little house of an old palm tree,

planted by his grandfather. It had begun to decay, so it was cut down and sawed into timber. The roof and sides of the house are covered with its leaves. The fence around our little garden is made of palm leaf stalks.

12. "When I was a baby I slept in a hammock made of fibers from the palm tree. Mother makes all our mats, and father makes his fish-lines of the same material.

13. "Our dishes and spoons are made of different sized coconut shells and palm leaves. At school we use the palm leaf to write on. When it is dried and rolled smooth it makes very good paper.

14. "Inside of the coconut is a delicious milk which you are drinking. When it is put aside in jars, in a short time it becomes vinegar.

15. "The white meat of the nut we grind into meal. It makes very nice cakes and gruel, and from it coconut oil is pressed.

16. "The sap of the tree is good to drink, and we also get sugar from it.

17. "The boats in which we sail on the river are made of palm tree logs that have been hollowed out.

18. "We believe that the coconut tree keeps away evil spirits. So we plant it near our homes and hang a sprig of its blossoms over the baby's cradle."

19. While Dochie is telling about the palm tree, our eyes are busy. We recognize the useful tropical trees that we saw in the Amazon jungle. Bananas, bread-fruit, and oranges look out from the green foliage. The ripe ones seem almost asking us to pick them. Vines

are climbing everywhere, around the tree trunks, up into the topmost branches and over the leaf-covered hut, pushing their tender twigs and bright flowers even into windows and doorway.

20. Dochie tells us about her father and his elephant. She says that elephants cost a great deal of money, and that they eat so much that only rich men and the government can afford to keep them. We also learn that her father's elephant belongs to the government and is working with others at this very moment down by the river.

21. We are eager to see them. We hurry away, following our

new friend across the clearing, along the shady path, until we come in sight of them. There they are piling up logs which they have brought from a nearby wharf.

22. First they put several logs together on the ground in a row. Then two elephants take a log, one at each end, and lift it upon those already placed. In this way the second and third rows are laid.

23. The pile is now quite high. They do not try to lift more logs, but stop and begin wagging their heads.



A WELL-TRAINED ELEPHANT

What do you suppose the ladder is for? What in the picture shows that it was taken in a hot country?

They look very wise and we wonder what they will do next. In a few moments they walk off and soon return with two long timbers. These they place against the pile of logs, resting one end on the ground. After making sure that the timbers will not slip, the four-

footed laborers roll one log after another up this incline until the fourth row is laid.

24. Not the least amusing part of the performance is the careful examination of the pile made by one of the elephants after placing each log. He is not satisfied until each one is laid perfectly square with the rest.



A TEA GARDEN IN CEYLON

This girl, picking tea leaves, gives us an idea of Dochie.

25. On our way back to the village we see men cutting down trees and elephants carrying them away. Other elephants are pulling stumps out of the ground and putting them in great piles to be burned. When the jungle is all cleared away, a grove of coconut palm trees will be planted.

26. Farther on an elephant is cultivating the soil in a

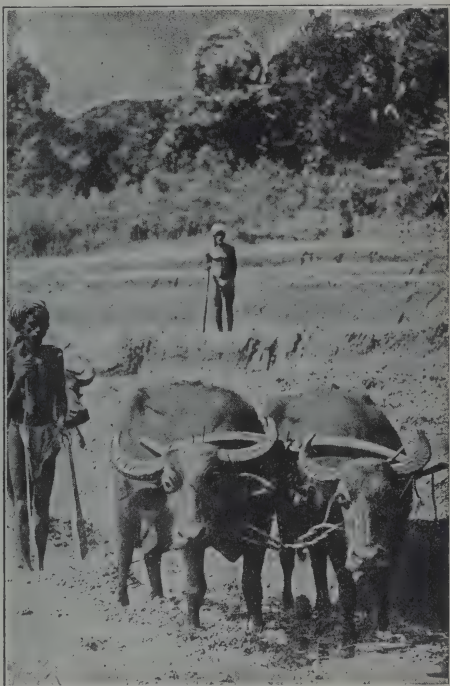
large field. He is dragging a plow, a harrow, and a big roller, one behind the other. In this way the ground is plowed, harrowed, and rolled, all at the same time.

27. Beyond this field we pass a tea-farm, where men, women, and children are picking the tea leaves from the bushes and carrying them in baskets to a shed near by.

28. The rice fields are also interesting. For hundreds of years the people of Ceylon have cultivated rice. While it is growing it must be covered with water, but when it is ripening the ground must be dry. So the

fields are surrounded by low banks of earth. Water is brought sometimes from distant lakes and reservoirs in bamboo pipes to flood the fields. Other bamboo pipes drain off the water when it is no longer needed.

29. Elephants are not used in the rice fields, but water buffaloes, which do the work of oxen, horses, and



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WATER BUFFALOES

They are plowing a field for rice planting. Make a model of the yoke and plow.

mules. They are very fond of standing and rolling in muddy water, so they do not object to working in the soft rice fields even when they are covered with water.

FOR PUPILS' STUDY

1. Across what two continents does the Equator pass? Across what two jungle regions?
2. Across what three oceans does the Equator pass?
3. Over what high mountains in South America does the Equator pass?
4. Find Ceylon on the globe.
5. How are jungles changed to tropical gardens?
6. Ahmed thought the date palm tree was the most useful tree in the world. Dochie thought the coconut palm was. What do you think? Give your reasons.
7. What is the most useful tree in the part of the world where you live? If you and another member of your class do not agree on which is the most useful tree, have a debate on the subject.
8. What kind of work are elephants trained to do in Ceylon? What animals are trained to work in the part of the country where you live?
9. With some pieces of wood, that you can play are logs, show how the elephants pile logs in Ceylon.
10. Read in your geography, or any other book, about the jungles of Central Africa; about elephants in India.
11. Rudyard Kipling has written some very interesting stories about the jungles of India. You will like to hear some of them read.

CHAPTER XIII

TAMING WILD ELEPHANTS

1. OUR day in the tropical gardens was coming to a close, and we were about to take leave of Dochie, when she said somewhat shyly, "Perhaps you would like to go with me to-night and see my father and the rest of the men of the village trap some wild elephants."

2. A herd of them had been doing much damage in the neighborhood. One night they went into a village and tore down the huts and trampled on the gardens. At another time, they entered the grove of young coco-



FIRST LESSON IN OBEDIENCE

In his rage this elephant has broken in pieces all the bushes and branches of trees within reach of his trunk. Find the chain that holds him tied to the tree.

nut trees owned by a rich planter. They pulled up some of the trees and broke down many others.

3. So the order had come from the government that six of the best of the wild elephants should be caught and that the rest should be either killed or driven far away into the jungle.

4. Matthes and his elephant had charge of the hunt. This elephant had been caught when he was a baby. He was now full grown and was a pet with all the family.

He was always good-natured and had become very skillful in doing the work that elephants are taught to do.

5. All day they had been out in the jungle hunting the wild elephants, and they were now driving them



A TAME ELEPHANT

towards a trap that had been built on the edge of the jungle not far from the village. We hurry off with Dochie to be on hand when the elephants appear.

TRAPPING THE ELEPHANTS

6. We are at the trap.

7. It is a large space on the edge of the forest that has been cleared of brush and vines. Stout bamboo poles have been put all around and these have been bound together with stout vines called jungle-rope. The trap is like a big yard surrounded by a strong, high fence. An entrance has been left on the side towards the jungle and a path has been cut leading to it.

8. It is two hours after dark, when we hear the first distant shouts of the men as they slowly drive the elephants towards the trap.

9. At last they are close upon us. We climb into a tree where we can see what takes place inside the trap. We wonder if the fence will be strong enough to keep the wild beasts in.

10. By the light of the torches we can see Matthes and his helper on their elephants leading the way. They are followed by the wild herd tearing and trampling the jungle brush and trumpeting in anger and fear. Behind, and on both sides, come the shouting men and boys.

11. The two tame elephants enter the trap at a brisk trot and station themselves under a clump of trees. One of them wags his head in a very wise way, as much as to say, "It's all right. We know how to do it."

12. On come the wild elephants at a thundering pace, following the leaders along the narrow path. In what seems but a moment they are all in the trap — twenty of them.

13. The men throw trees across the entrance, and light a big bonfire to frighten the elephants away from that side of the trap.

14. It is an exciting time. Some of the wild beasts are not content to stay in the trap. They rush this way and that, but they meet at every point a man waving a long, white stick. For some reason they seem to be afraid of these white sticks.

15. If an elephant becomes too much excited, the two tame ones go up to him and tumble him over with their heads or begin beating him with their trunks.

16. After a long time the wild elephants are completely tired out. They stand still and appear to accept their fate.

17. This is the time to select the best ones. Half a



TAKING A BATH

dozen men walk quietly among them. Each picks out a large, full-grown one. He creeps up behind him and lightly touches one of his big hind legs with the end of his finger. The elephant thinks it is an insect biting him. He raises his foot and, while he is putting it down, the man slips a stout loop, or noose, of jungle-rope over

it. The other end of the rope is quickly tied around the nearest tree and the elephant is caught.

18. After the six have been tied in this way, the rest are driven out of the trap. Those that are not killed, as they rush out, escape back into the jungle.

19. As we are leaving the trap, Dochie tells us how the six elephants will be educated.

20. They are put in charge of tame ones. Every day two tame elephants will teach a wild one to obey orders. They will punish him if he is obstinate or slow to learn his lesson. After he has learned to obey, they show him how to pile logs, to plow, to carry burdens, and to do what the driver tells him to do.

21. At the end of two or three months, the wild and unruly monsters of the jungle may be seen quietly and happily working with their tame brothers and sisters.



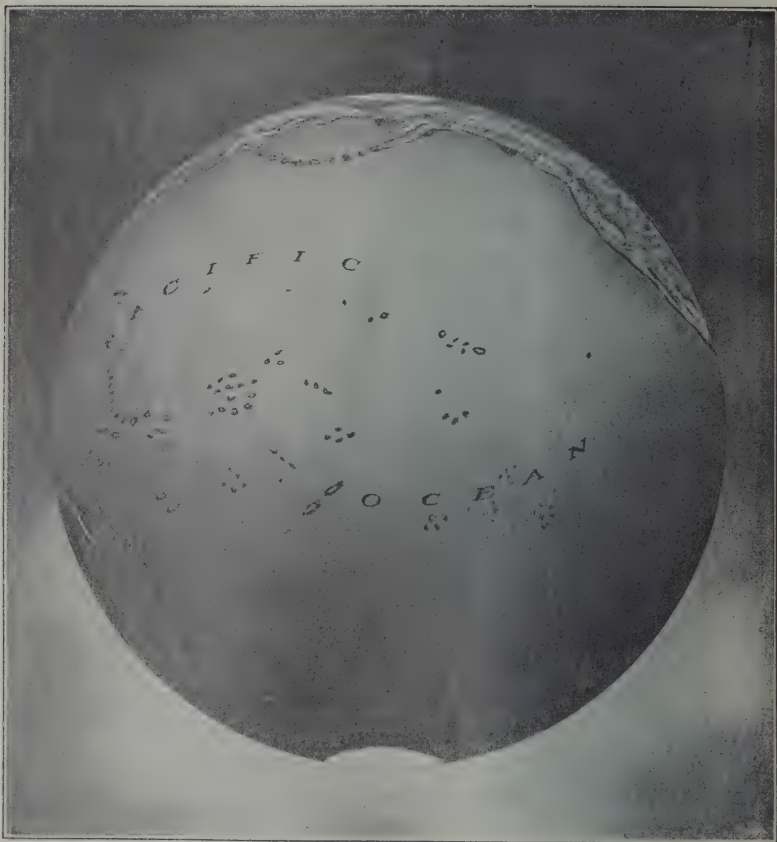
AT WORK

This elephant has been to the woods with his master and is bringing home a load of fagots.

FOR PUPILS' STUDY

1. In what ways are wild elephants bad neighbors?
2. Give all the reasons you can find

in this chapter for thinking that elephants naturally have a good disposition.



Courtesy American Museum of Natural History, New York

PACIFIC OCEAN

Important locations — The Ocean; Northern Ice Cap; Southern Ice Cap; North America; Hawaiian Islands; California; San Francisco; Equator.

3. Which is most useful, the elephant, the camel, the reindeer, the Eskimo dog, or the horse? Have a class debate on this question in which the good points of each animal are described.
4. Tell how a horse is trained to work.
5. On the sand table make an elephant trap and show how wild elephants are caught in it.

CHAPTER XIV

A HOME IN OLD HAWAII

1. WE have taken leave of Dochie and the elephants. We are on a steamship sailing around the earth eastward on our way back to our own country. Our course



ONE OF THE HAWAIIAN ISLANDS

Coconut palm trees

is through the Torrid Zone, among the many tropical islands that lie on the Equator and on both sides of it.

2. From the Indian Ocean, we pass into the Pacific Ocean. Our ship now points its bow northeast. We are headed for home.

3. For many days we steam along through the waves. But one day we spy a speck on the horizon just ahead. It grows larger and larger until we see that it is land. The shore is fringed with graceful palm trees, and a line of white foam shows where the tiny coral animals



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AN HAWAIIAN HOME

This hut made of grass is like the one in which Kaluhe lived. Cows, horses, and mules have been taken to the islands by white men. Notice the fern-like leaves of the big branches of the tree.

have built their coral reefs. This is one of the Hawaiian Islands, sometimes called "The Paradise of the Pacific."

4. If we had visited these islands a hundred years ago, we should have found a small village near the sea-shore. All the houses were made of dry grass covering a framework of bamboo poles. The houses, or rather huts, were like those commonly built by savage people in the Torrid Zone.

5. In one of these huts lived a little boy, named Kaluhe, with Nalima, his mother. It was a simple home of one room, furnished only with grass mats on which Kaluhe and Nalima sat and slept. A hole in the ground outside served for a stove, which was partly filled with hot stones when it was used for cooking. Above the hut tall palms nodded in the sun and bent protectingly when the tropical hurricanes swept in from the ocean.

6. Nalima was a cloth-maker. Now the cloth that these savage people wore was made of the bark of trees, and Nalima spent most of her time gathering the bark and making it into cloth. She could make better cloth than any one else in the village, and her neighbors were always ready to give her fish and vegetables in exchange for it.

7. Kaluhe helped his mother as much as he could. At first he could do little but go with her into the woods and watch her strip the bark from the trees. But, as he grew older and stronger, he helped carry the bundles of bark back to the hut and pile them up by the doorway.

8. Nalima and Kaluhe sat day after day in the shade of the palm trees. While Nalima worked at her task of changing the bark into cloth, she told her little son many stories about the spirits of the air, the ocean, and the fire-mountain, from which was always rising the cloud of white steam. One of these stories is related in the next chapter.

9. When Kaluhe was old enough, he learned how to scrape off the coarse, outer bark with a sharp sea-shell;

and when his arms were strong enough to swing the heavy mallet, he pounded the smooth bark on a log until it became wide and thin like paper. His mother was so skillful at this that she could make bark-cloth as thin as muslin. Then Nalima taught him how to bleach the cloth

until it was almost white, and how to dye it and ornament it with designs of different colors.

10. But Kaluhe had his play hours as well as his hours of listening to Nalima's stories and of helping her at her work. He used to wander off into the jungle with the other children of the village, where he picked berries, and climbed trees after wild bananas and oranges and coconuts. And there was the ever-inviting sea-



ON A SURF-BOARD

shore, where he hunted crabs, caught shrimps in a net, and gathered seaweed. All these were good for food after Nalima had cooked them in the hole in the ground, their only stove. And there was bathing and swimming in the surf, and, when he was old enough, he learned how to skim over the breakers on the surf-boards. This was fun indeed. Sometimes he was allowed to go out

with a fisherman in his odd-looking boat. He would spend the time watching the bright-colored, curious-shaped fish swimming about and in and out of the coral reefs, while the fisherman dove down among them and swept them, with a palm leaf branch, from their nests into his net, or pierced them with his slender spear.



AMERICAN BOYS IN HAWAII

These boys are showing you their surf-boards. How long are these boards? How wide?

11. It was Kaluhe's ambition to become a fisherman, for his father had been one and so had his grandfather. But Nalima always looked sad and shook her head when, with glowing face, he told her what he intended to do when he grew up. His father had gone out fishing one day and had never returned.

12. The village dances were the most joyful times

When the moon and stars shone bright and made the tropical night almost as bright as day, the whole village was accustomed to gather on the shore. With garlands of sweet-smelling flowers around their necks, they danced and sang to the music of drums and flutes until far into the night.

13. And so the years passed. Nalima became a very old woman. Kaluhe grew to be a man, and became a fisherman as his father and grandfather had been.

FOR PUPILS' STUDY

1. On the voyage from Ceylon to the Hawaiian Islands we shall pass by the Philippine Islands and Australia. Read about both of these places in your geography. On which side of the Equator is each of them?
2. In which zone are the Hawaiian Islands?
3. Read about coral islands in your geography.
4. Compare Kaluhe's hut with your home.
5. Tell how cloth was made of the bark of trees. How is cotton cloth made?
6. How did Kaluhe amuse himself when he was not helping his mother? Describe some of your sports.
7. Draw some designs that would be suitable to paint on the bark-cloth used for a cloak by the ancient Hawaiians.
8. What in this chapter makes you think that the Hawaiian Islands are in a tropical part of the earth?

CHAPTER XV

A BRAVE HAWAIIAN PRINCESS

1. In the days, long ago, when Kaluhe had grown to manhood, there was a powerful king who ruled the brown-skinned, savage people of the Hawaiian Islands. He had a beautiful daughter, named Kapiolani.

2. The home of this king and of the princess was near the great volcano from which ever rises the white cloud of steam that is seen far out on the waters of the ocean.

3. Kapiolani, the king, and all the people, believed that the terrible fire-mountain, as they called the vol-



A JUNGLE ON THE HAWAIIAN ISLANDS

Notice the tall ferns that grow higher than the man on horseback, and the vines that climb from tree to tree.

cano, was the home of evil spirits. The mightiest of these spirits, and their ruler, was the goddess, Pele. Pele had several sisters. One was named "Fiery-Eyed-Canoe-Breaker." Another was called "Red-Hot-Mountain-Lifting-Clouds," and the rest had equally terrifying names.

4. These simple-minded savages were very careful

not to displease Pele and her sisters. They were particularly careful not to take anything that grew near the volcano without asking permission of the goddess. Some sweet, red berries grew there of which they were very fond. But when they picked them they were accustomed to throw a few in the direction of the crater, saying : "Pele, here are your berries. We give some to you. Some we also eat." Then they ate all they wanted without fear, because they thought the spirit was pleased with their gift.

5. It was supposed that these fire-spirits sometimes quarreled. They also went on long journeys and had strange adventures. This story of Pele and the ocean spirits was one that Nalima used to tell Kaluhe as they sat together under the palm trees making cloth.

PELE AND THE OCEAN-SPIRITS

6. Once upon a time, the god of the ocean became very angry with Pele, the fire-spirit, because she would not obey him. He came one day to the foot of the fire-mountain and shouted, "Pele, come forth."

7. Pele replied from her home in the volcano, "You are not my master. I refuse to obey you."

8. Then the god of the ocean summoned his water-spirits. Huge waves rolled in from the boundless sea, and piled one on top of the other on the shore. At his command, they leaped up the sides of the volcano. They flowed over the edge of the crater and filled it full of water to the very top.

9. For one short moment it seemed that Pele and the other fire-spirits were drowned and that their fires were quenched forever. But she cried aloud to her sisters.



THE VOLCANO

The home of the goddess, Pele.

They rushed to help her. Together they set to work to drive the water-spirits from their home. First they heated the waters until they boiled. Then they heated them still more and great clouds of steam rose into the air. Almost in despair, exerting all their power, they

heated the waters many times hotter than before. There was a fearful explosion. All the waters to the last drop were hurled from the crater back to their home in the ocean. So Pele ruled once more in her mountain.

10. The savages of the Hawaiian Islands believed such stories as this until white people from our own country went to them and taught them that there were neither water-spirits nor fire-spirits. The beautiful princess, Kapiolani, determined to prove to her people that they need fear these spirits no longer. How she did it is told in the following story.

HOW THE POWER OF PELE WAS BROKEN

11. When Kapiolani was a little girl, she had been



HOME OF A JAPANESE LABORER

This home is in the midst of a coffee plantation.

taught to fear Pele and her sisters. Many times she had gone to the mountain to pick the sacred berries, but had never dared eat them until some had been offered to the goddess. When, at night, the fires of the crater lit up the sky and the earth shook, the mountain rumbled, and the lava gushed up over its edge and

flowed down the mountain-side, she used to tremble with fear as she lay on her bed of grass-mats and pray to the fire-spirits to protect her from harm.

12. But now she had grown to be a woman. She had come to believe that there was no Pele and that there



A RICE PLANTATION

were no fire-spirits. She wanted her people to believe this also. But they would not believe unless she proved it to them.

13. So one day she walked up the side of the fire-mountain with a great company of her people. As they came near the crater, they urged her to go back. But she said, "I will descend into the crater. If I do not return safe, continue to fear Pele. If I come back unhurt, you will know that there are no fire-spirits."

14. Then she went down into the crater with a few who were willing to die with her. She pushed a stick into the sacred ashes. She ate the sacred berries of Pele in her very home. She cried aloud to the spirits to destroy her, if they could.



HAWAIIANS TO-DAY

Many of them live in grass huts but they wear clothes like our own. Notice the modern house in the background.

15. All expected to see the angry goddess appear and burn up the daring princess. But when she stood unharmed and returned in safety, they shouted, "There is no Pele! There are no fire-spirits."

16. From that time the people ceased believing in fire-spirits, and they loved and honored their beautiful princess even more than they had before.

17. All these things happened a hundred years ago. To-day the Hawaiian Islands belong to the United States. Since the time when the white people taught Kapiolani not to believe in the fire-spirits, people have gone there from many lands, not only from our own country, but from China, Japan, and from Portugal and Italy. They have cleared away the jungles and have planted tropical gardens in their place — plantations of sugar, rice, coffee, and pine-apples. Instead of grass huts we shall find neat little cottages of wood. The beautiful city of Honolulu now stands where Kaluhe once lived.



A HOME IN HONOLULU TO-DAY
This home is built near where Kaluhe once lived.

FOR PUPILS' STUDY

1. Why do you suppose the Hawaiian people believed in evil spirits in early times? Do you think it is strange that they should?
2. Read about volcanoes in your geography.
3. Pele and her sisters drove the water-spirits from the crater by heating the water. What happens to water in a tea-kettle when it is heated a little? When it is heated considerably? When it is heated very hot?

4. How did the savages learn that there were no fire-spirits?
5. Who own the Hawaiian Islands to-day?
6. Who live there?
7. What changes have been made there during the last one hundred years?
8. Read about these islands in your geography and in books that you can get at the library.
9. Write the names of the countries from which people have gone to Hawaii. Locate them on the globe.
10. Make up a fairy story that is suggested by the story of Pele.
11. Perhaps your mother will buy a can of Hawaiian pineapple so that you can have some for supper.
12. Find out from your grocer whether or not the sugar you buy comes from Hawaii.

CHAPTER XVI

BACK TO OUR OWN HOMELAND

1. Two thousand miles of ocean separate the Hawaiian Islands from our own homeland, the United States



LEAVING HAWAII

The high hill was once a volcano, but many years ago its fires burned out. This is the last land that we see as we sail eastward towards home.

of America. For an entire week we shall sail on a steamship with never a sight of land from the time "The Paradise of the Pacific" disappears below the western horizon until the headlands of the Golden Gate loom up in the east.

2. Two thousand miles is a long distance. Day after day, night after night, without stopping, the great ship plows its way through the waves. The North Star is our guide by night and the sun by day. The captain has marked the course on his map, and with the help of his compass he can

steer the ship so that it will reach the desired harbor.

3. Do we realize how many men and women have toiled that we may make this journey across the ocean in safety and comfort? Let us see who they are that we may thank them, at least in our hearts, for their services to us. First there are men who dig the iron of which the ship is made from the mines in Norway and Sweden or England or the United States. Then there are railroad and steamboat men who take the iron from the mines to some place where it is melted in huge fur-



HOMeward BOUND

A moonlight night on the ocean.

naces. In foundries and rolling mills there are other men who make the iron into plates and framing pieces, and punch the holes for the rivets. Railroad men load the plates and frames upon cars and deliver them to the ship-



SAILING THROUGH THE TROPICS

This is one way to be comfortable on shipboard.

yards, where skillful shipbuilders fasten them together with rivets.

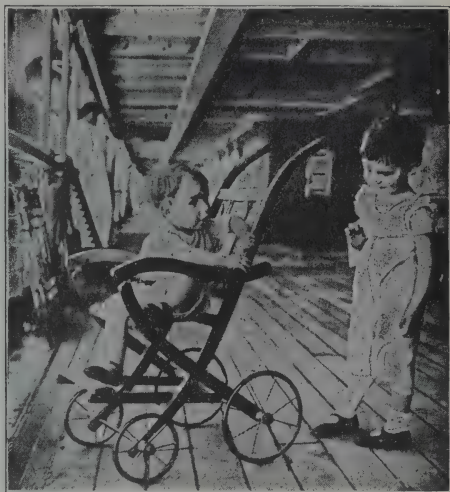
4. While the ship is building, other men in different parts of the country are planning and making the machinery, the signal lights, the flags, and all the fittings and furnishings.

5. But food must be provided for the passengers and

crew on the voyage. Men and women in many parts of the world are planting and harvesting grain, vegetables, and fruits, and are raising chickens, sheep, and cattle to be sent to the harbor from which our ship is to sail.

6. And while we lie asleep in our comfortable berths at night, and sit on deck by day, the captain and his men are ever watchful that the ship keeps to her course. The engineers are careful that the engines are oiled and that they do not stop. The firemen, far down near the bottom of the ship, are continually feeding the hungry fire-boxes with coal so that the boilers may give the steam which drives the engines.

7. For our comfort many things are provided. Little rooms, called *staterooms*, have been built for us to sleep in. Parlors and libraries are furnished with easy chairs, tables, books, and pianos. In large dining-rooms four meals a day are served, and we may have lunches besides, if we wish. In the kitchens many cooks are constantly preparing our food. There are chambermaids,



Brown Brothers

AT HOME ON SHIPBOARD

Children and grown people pass much of their time playing games.

waiters, and waitresses, doctors and nurses, all ready to help make the voyage a pleasant one.

8. So we speed along, through storm and calm, enjoying the fresh sea-breezes and watching the birds flying



ENTERING THE GOLDEN GATE

The large building is a fort. What is it built there for? Find the light-house. The pretty house on the rocks is the home of the light-house keeper's family. What flag should be flying from the flag-pole?

about in the air and the fishes sporting in the water. On the seventh day, far away on the eastern horizon, a dark line appears. It is the western shore of our homeland.

9. The finest harbor on this shore is where the great city of San Francisco has grown up. The entrance to the harbor is a narrow passage called the Golden Gate. At evening the setting sun fills the air with a glorious

yellow light that changes the ocean into a fairyland of gold to which this is the gateway.

10. Through the Golden Gate our captain guides the ship to one of the wharves that line the harbor shore. We leave the ship and step upon the land we call our own.

FOR PUPILS' STUDY

- | | |
|--|---|
| 1. Find the Golden Gate on your globe or map. | United States to the Hawaiian Islands? |
| 2. In what state is it? | 7. Suppose you were sailing from the Hawaiian Islands to the United States and kept a diary. Tell what you might write at the close of one interesting day. |
| 3. What other two states touch the Pacific Ocean? | 8. Where do we always see the sun at the close of the day, no matter in what part of the world we are? |
| 4. What other men and women have helped to build and furnish a ship besides those mentioned? | 9. Make a collection of pictures that illustrate people who are at work for us when we travel on the ocean. |
| 5. What would a ship be likely to carry from the Hawaiian Islands to the United States? | |
| 6. What might it carry from the | |

CHAPTER XVII

A NEW ENGLAND BOY IN THE FAR WEST

1. WE have entered the harbor of San Francisco, the second largest city on the Pacific coast of our country. It is also the second largest city in the State of California.

2. On the other side of our country, there is another large city named Boston. It is one of the most important seaports on the Atlantic coast. It is the largest city in the State of Massachusetts.

3. Not many years ago there was born, in a little village near Boston, a baby boy whom his parents named Luther. Even as a little child Luther delighted to play with flowers. Most children like to pick flowers, but too



By permission of Hartsook

**LUTHER BURBANK, WHO DID MANY
WONDERFUL THINGS WITH
PLANTS**

often they thoughtlessly destroy their beautiful playthings. Luther was very careful with the flowers that were given him. One day, as he was lying in his cradle, his sister put a bunch of them into his chubby, little hand. By accident, a leaf was broken off. A little later his sister found him trying, with sober face, to stick it on again.

some one made him a present of a small potted plant. He cared for it, as most children care for their dolls. He held it in his arms, patted it, carried it about with him, and when he went to bed he put it in a safe place and said good-night to it. One day he was going about the house holding the pot carefully in his arms, when he stubbed his toe and fell. The stem of the pretty plant was broken off near the roots. When Luther found that

4. This story is also told of him. When he was learning to walk,

his pet was ruined beyond repair, he was greatly distressed and could not be comforted.

5. As the years passed Luther's love for flowers and all growing things increased. When he became a young man, he found a place to work in a market-garden. Here he studied the growth of vegetables and learned how to



Courtesy Mr. Burbank

LUTHER BURBANK'S HOME AT SANTA ROSA, CALIFORNIA

improve them. He caused a new kind of potato to grow that in after years became famous. Perhaps your mother sometimes buys it. It is called the *Burbank* potato.

6. From this you will guess that Luther's last name was Burbank. He lived near San Francisco in the beautiful Santa Rosa valley among the mountains of the Pacific coast. His home was always surrounded by the flowers he loved.

7. Why do you suppose that Luther Burbank, while he was yet a young man, left his New England home, traveled across the country and built a new home in the far-away west? It was because fruit trees, plants, vegetables, and flowers grow faster, larger, and more perfect in the valleys of California than they do in Massachusetts.



ON A WESTERN RANCH

Luther Burbank crossed wide, level plains like this when he went from New England to California. Find a picture of a New England farm in your geography and compare it with this.

8. The growing season is short in New England. Spring begins late and autumn sets in early. The winters are long and cold. But on the Pacific coast the summers are long and hot. Winters are really seasons of rain, and all nature is green and flowering.

9. So Luther went to California because here his fruit trees and flowers would grow best. Here he could plant and harvest several crops of vegetables each year, and could work among them and improve them without the interference of snow and ice.

10. We can only mention two of the wonderful things he did. When he first went to California, he found that the English walnuts that grew there had thick shells and small kernels. He studied and worked over them until the trees bore large, meaty nuts with shells



ON TOP OF THE SIERRA NEVADA MOUNTAINS

The mountains are near the Pacific coast. One must cross them in going from the eastern to the western shore of our country.

as thin as paper. Then he discovered that the shells were so thin that the birds pecked through them and ate the meats. His crop of delicious nuts was being ruined by the friendly birds. But, instead of killing the birds as we might have been tempted to do, he set to work again to make the walnut trees grow shells a little thicker. At last, he succeeded in producing them with shells too hard

for the birds but thin enough and meaty enough to please people who want to eat them.

11. The thorny cactus grows wild in the great deserts in the western parts of our country, but they are covered



WILD CACTUS

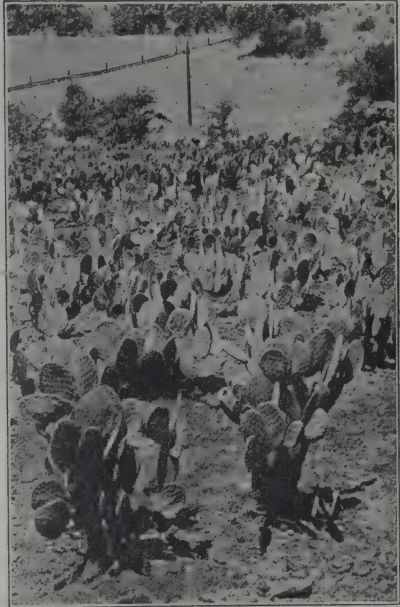
Notice the spines, like needles, covering these plants.

with thorns so long and sharp that no animal can eat them. Mr. Burbank took some of these cactus plants from the desert and planted them in his garden. He studied them as he had studied the

walnut trees. He worked with them for several years, and finally produced large, pulpy, juicy cactus plants without any thorns at all.

12. Mr. Burbank's plants and fruits and flowers were his children; he had no others. But this is what he once said about real children:

"I love sunshine, the blue sky, trees, flowers, mountains, green meadows, sunny brooks, the ocean when its waves softly ripple along the sandy beach, or when pounding the rocky cliffs with its thunder and roar, the birds of the field, waterfalls, the rainbow, the dawn, the noonday, and the evening sunset, — but children above them all."



SPINELESS CACTUS

These cactus plants are the kind that Mr. Burbank caused to grow without spines.

FOR PUPILS' STUDY

1. On your globe or map, find the State of Massachusetts. What are the other New England States?
2. Find Boston.
3. What is a market-garden?
4. Try to find a Burbank potato. If you can find one bring it to school.
5. Across what great river did Luther Burbank go on his way to the far

- West: Over what high mountains did he pass?
6. What mountains are nearest to the Pacific Ocean?
 7. In seed and vegetable catalogues you can find the names of flowers and vegetables that Mr. Burbank has improved. Perhaps you will like to send to him for some of his seeds and plant them in your school or home garden.
 8. On his way across the country Mr. Burbank may have passed through the great cities, New York, Chicago, Minneapolis, and St. Paul. Find these cities on your globe or map of the United States.
 9. Find in your geography pictures of New England farms and gardens and of California farms and gardens. What differences do you notice?

CHAPTER XVIII

THE HOME OF A FOREST RANGER

1. THERE are Father John and Mother Mary. There is Sam, a big strapping boy: Susan, a fine well-grown girl: little Tom: and tiny Margaret, who goes by



A FOREST RANGER'S CABIN

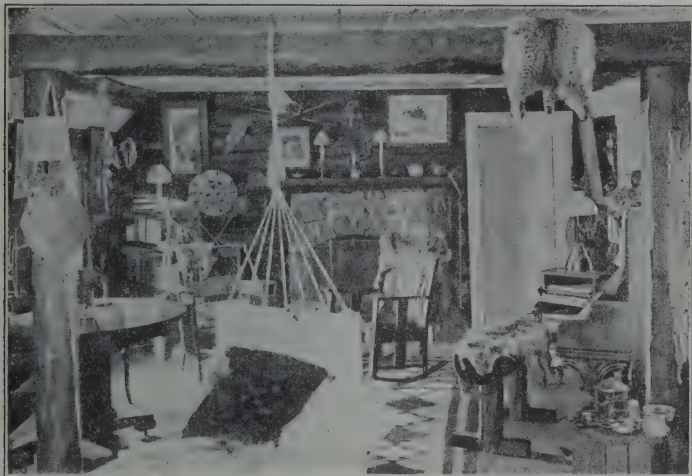
It is made of logs and chinked with clay.

the name of Peggy for short and because everybody loves her. And there are others in this family who are also worth knowing — Jim, the hired man who helps in a hundred ways, three horses, two donkeys, a pet burro, a cow, a pig, a rooster, and hens and

chickens. And we must not forget Jumbo, the great St. Bernard dog, for he drives off the hawks from the

chickens, and follows Tom and Peggy about all day to see that no harm comes to them.

2. This is a big family, big enough to have a jolly time, even although they have left all their friends to live for a time in the heart of the Rocky Mountains. We



INSIDE A RANGER'S CABIN

Name all the things you can see. This is not the cabin in which Father John lives, although it is the home of a real ranger's family.

are interested in them because they have come here to work for us, as we shall see later in the story.

3. Father John is a forest ranger in one of the great forests owned by our Government. There are more than a hundred of these national forests in different parts of our country, and each one has its forest rangers to care for it.

4. Early in the spring this ranger came with his family

to the little cabin on the mountain-side. Here they will stay until the snow begins to fall in the autumn. Then they will go back to their home in a village in the valley.

5. It seems to be a very small cabin indeed for so large a family. That is, it seems small if you look at it from the outside. But, when you enter, you find plenty of room for a comfortable home for all. There is a good-sized room with a generous fire-place, called a living-room. On one side, two doors open, one into the little kitchen, the other into father's and mother's bedroom. Climbing up a steep flight of stairs in a corner of the living-room, you will find yourself in a big room right under the roof. The four narrow beds, standing in a row, show that this is where the children sleep. Jim, the hired man, has a little box of a room in the shed, where any of the animals that happen to wander in during the day or night keep him company.

6. During the cold days of early spring and late fall, and when storms sweep over the mountains, the family stay much indoors around the warm fire. But at other times these forest rangers, big and little, live in the great out-of-doors. Up near the top of these high mountains they seem to be on the roof of the world, which stretches away beneath them for hundreds of miles.

7. Most of the world that they can see is covered with forests, and their cabin is hidden among the trees. So the Government has built a high tower with a little room surrounded by glass at the top. From this observ-

atory all the country round can be seen. Father John, or one of the family, keeps watch here from sunrise to sunset to discover any fire that is started in the forest. This is the chief business of the ranger during the hot



A WATCH TOWER

summer time, when fires are easily started in the dry brush and grass that litter the forest floor. If the fire is not put out when it is small, many miles of valuable woodland may be burned over.

A FOREST FIRE

8. It is a warm July day. Father John is in his place in the tower. He is looking off over the trees with unusual care, because no rain has fallen for several days. Hunters and tourists are about in the woods, and he

knows from past experience that some of them will be careless with matches or with their camp-fires.

9. He is not mistaken. About the middle of the morning a column of smoke shows where a fire has started.



REPORTING "SMOKE"

A map of the region around the tower hangs behind the ranger.

He takes a long look through the telescope. He studies his map and locates the fire. It is about ten miles away in an easterly direction from his tower. He turns to the telephone on the little shelf by his side, and calls another ranger in a tower

miles away on the other side of the mountain.

10. "Hello!" he says, "just spotted a fire ten miles east from here, near Look-Out Lake. I will be there with Jim by one o'clock this afternoon. We shall need your help."

11. He puts up the telephone and goes as fast as he can down the ladder to the cabin. The account of the fire is soon given. Mother Mary and Susan hasten to prepare some food for him to take. Sam and Jim harness the horses, while Father John gets the bundles of tools that are always kept ready for just such occasions. He tells Sam to keep watch in the tower while he is gone. He and Jim mount their horses, throw the tools and the

bags of food over the horse's back in front of them, and are off at a gallop down the mountain road.

12. Sam climbs into the tower. He keeps a sharp eye on all the country round, and watches with keen interest the cloud of smoke in the east. He sees that it is grow-



COUNTRY AROUND THE TOWER

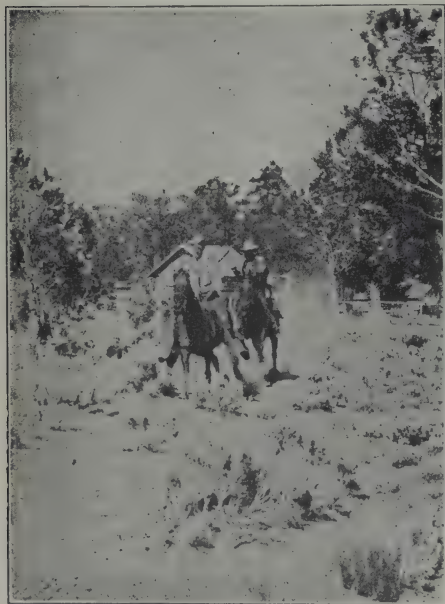
Fires easily catch in the leaves that cover the ground.

ing larger as the hours pass. Now and then, tongues of flame leap through the smoke and travel over the tops of the trees. The telephone rings.

13. "Hello!" a voice calls over the wire. It is his father's voice. "The fire is getting away from us. Telephone to the next station for more help. I shan't be home to-night."

14. The voice stops, but Sam has heard enough. He

knows what to do. He first sends the call for help. Then he hurries down to the cabin, and soon all is bustle. While he is saddling the spare horse, Mother Mary and Susan prepare a supper and breakfast to take to the men,



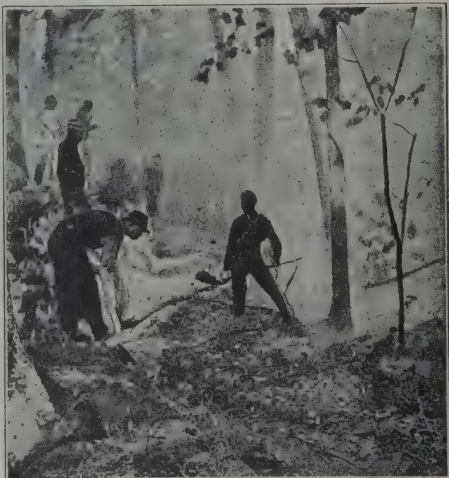
STARTING FOR A FIRE

for they must fight the fire all night. Meat, bread, and coffee are soon ready. Mother Mary mounts into the saddle, the food and the coffee are stowed away in the saddle bags, and she is away and out of sight in the forest.

15. Arrived at the fire, she finds that the woods are a mass of flames. The heat has driven the wild animals scampering in all directions. Blind-

ing smoke fills the air. A dozen strong men are hard at work. The underbrush is being cleared away. Trees are being chopped down. A trench is being dug, and dirt is being thrown upon the fire wherever it is discovered creeping through the grass. Already hundreds of acres of forest have been burned over, destroying thousands of dollars' worth of trees.

16. All night the rangers fight the fire. Not until late in the afternoon of the next day can Father John and Jim leave the work to others and ride back to their cabin home. They arrive late in the evening tired and hungry. The children rush out to meet them and take the horses to the stable. Mother Mary soon has a hearty supper ready and then all the family, including Jumbo, gather around the table to hear the story of the battle with the flames. But this day had an end as all days have and the ranger's family must prepare to meet the new adventures and dangers of to-morrow.



Courtesy American Museum of Natural History, New York

PUTTING OUT A FOREST FIRE

Forest fires are put out by throwing dirt on the burning leaves and grass and by digging trenches to keep the flames from spreading.

17. But there is other work for the ranger to do besides watching for fires and putting them out. You have seen how useful the telephone is in the forest. The wires must be strung from station to station, and from the different stations to near-by towns. Whenever they break, they must be repaired quickly. Paths and roads must be made and improved, so that a fire in any part of the forest may be reached without delay. Boxes of

tools must be placed where they will be at hand in case a small fire is discovered far from a station.

18. And not the least important of a ranger's duties is to tell all the people whom he meets to be careful with matches and camp-fires. To help them remember he nails warning signs on the trees where people are likely to pass or build their fires. Some of the signs read like these: —

19.

NOTICE

Break your match in two
before you throw it away

20.

NOTICE

Be careful of your matches

21.

NOTICE

You are careful of fire !

Will you not teach others to be careful while they are in the woods? Put out camp-fires and matches.

22. The Indians have caused a great deal of destruction in the forests of our country, both through carelessness and because of their peculiar customs. They used to set fires to drive the wild animals from their hiding-places. This saved them the trouble of hunting them.

23. For a long time the rangers could not understand why there were so many fires near the Indian villages. At last they found out that the squaws were setting the fires to singe the wings of the grasshoppers that lived in the grass. But why should they wish to singe the wings of grasshoppers? On inquiry the rangers were told that grasshoppers, cooked in soup, were considered a great delicacy by the Indian braves. The squaws were compelled to catch the grasshoppers, and they could catch them much easier after their wings were singed.

24. The rangers explained to the Indians the great damage that was done to the forests by these fires

and that people were often burned to death by them. They also told them that the Government would punish them if they set any more. Now the squaws are obliged

to catch their grasshoppers with unsinged wings, and there is seldom a fire near an Indian village.



AN INDIAN RANGER

This Indian has stopped setting fires and has become a guardian of the forest.

FOREST PLAYMATES

25. With so much work to be done it would seem that a ranger's family had little time for play. And, in fact, theirs is a busy life. But the men do find a day, now and then, for fishing or hunting. Mother Mary and the children often take a picnic-lunch and go off in search of berries. And the wild wood-folk are always interesting and often amusing. Little Tom, tiny Margaret, and big Jumbo have more time than the others to

become acquainted with them. Before the summer has passed, they know where the squirrels live and where they hide their winter's store of food. They have followed the ground hog to his hole and the porcupine to his tree. They can recognize a rabbit's track in the soft earth. They have learned how to creep quietly into

the hiding-places of the birds and watch the mothers feed their young.

26. From time to time, one of the wood-folk joins the ranger's family. In a big box by the shed a little cub bear is curled up, apparently quite contented. Jim found him one day wandering about alone in the woods. He had probably lost his mother. On another day, Jumbo came trotting into the cabin with a jay in his mouth. It was still alive, but one of its wings was broken. The children nursed it carefully and it became one of the family pets. All day it hopped about from one piece of furniture to another and upon the shoulders or heads of any one who happened to be near, pecking at whatever looked good to eat and scolding in a friendly sort of way.

27. The happy summer months passed and autumn came and went. The first snowstorm was a sign that it was time to leave the mountain-cabin and go back for the winter to the village in the valley. Father has his winter work to do and the children must go to school. The cabin is closed, the vast forest and the wood-folk are left to themselves until another spring.

28. Do we realize how important it is for us that our Government owns these great forests, and is employing the rangers to care for them? Write on a piece of paper a list of the things that are made of wood, not forgetting the paper on which you are writing. This is probably made of wood pulp. The trees serve another useful purpose also. Their roots hold back the water, that falls on the mountains and that comes from the melting

glaciers, from rushing into the valley and destroying the fields of grain and corn and other crops. Thus the trees are guardians of our food supply. So we see that, as we said at the beginning of our story, the forest ranger and his family are really working for us.

FOR PUPILS' STUDY

1. What is a national forest?
2. Why has the Government bought these forests?
3. Find the Rocky Mountains on the globe or map.
4. What is the business of a forest ranger?
5. The ranger's children know a great deal about the wild animals around their cabin. What wild animals do you know? Tell something that you have seen them do.
6. What part of this story is most interesting to you?
7. State three things that you have learned about our country from this story.
8. Light a match and try to break it in two before it is entirely "dead." Do you see the reason for the notice, "Break your match in two"?
9. Where before in this book have you read about St. Bernard dogs?
10. Give one reason why you think the forest rangers are very useful people.

CHAPTER XIX

THE VILLAGE BELOW THE RIVER

1. THIS particular village is in the southern part of our own country where the great Mississippi River flows into the Gulf of Mexico.

2. If you will find the Mississippi River on your globe or map, you will see that it begins in the northern part of the United States, almost in the very middle of the continent of North America. It flows south across our

country and is joined by other rivers, called tributaries, that come from the Appalachian Mountains and from the Rocky Mountains.

3. This river is a hard worker as all rivers are. It digs away its banks and carries the earth and often trees and houses from the mountains and from the fields through which it flows way down to where it passes out into the great gulf. By dropping its burden here, it fills up the bottom of its bed and builds up its banks, so that after many, many years its bed is higher than the surrounding country. So it happens that people who build their homes near the river are in many places living *below the river*.

4. There are other rivers in other countries that have built their beds above the surrounding land. You will learn about them in your later study of geography. But now we are interested in our own Mississippi and a little village under its banks in the State of Louisiana.

THE STORY OF THE VILLAGE

5. As we have just been told, the river has built a ridge, that is very much like a big trough in some places, along which it flows across the lowlands near its mouth. These lowlands need to be drained and cleared of their wild growth of trees and bushes, before people can live on them, for they are much like the jungles along the Amazon River.

6. Many years ago, a company of people came from a distant country to make a new home in these marshlands.

They found a place that suited them. They cleared the land and drove away the crocodiles and other wild animals. They drained it with ditches. They built a village and planted their gardens. They also built a little chapel and a bell-tower in which they hung a bell. Above the village, higher than the roofs of its little cottages, flowed the great river along the top of its ridge. That is why we have called this, The Village Below the River.

7. After they were settled and their crops began to grow, they decided that they must have a school for the children. A small one-room cabin was built and a teacher was engaged. One who knew this village has written the following account of the opening of the school. While reading it, you should remember that these children were strangers in a new country, and that they had never been to school before. The teacher, too, was as interested in the new school as the children were.

THE SCHOOL BEGINS

8. They were all gathered under the little chapel-tower when, for the first time, its bell rang for school. The young teacher, whom they called master, was there too, so that there was really nothing to ring the bell for. They could have walked all together across the village green to the little schoolhouse, and begun the session. But it would be fun to ring the bell. A few of the stronger lads would even have sent the glad clang abroad before the time, but the teacher restrained them. For one thing, there must be room for every one to bear a hand.

So he tied above their best reach three strands of cord to the main rope. Even then he was not ready.

9. "No, dear children: but grasp hold of the ropes, every one — the short children reaching up shortly, and the long children longly."

10. They caught the idea, and yielded themselves eagerly to his arranging hand. The highest grasp was the oldest boy's. There was a little empty space under it, and then the timid, smooth, brown hand of the oldest girl. And still the master held back the word.

11. "Not yet! Not yet! The pear is not ripe!" He stood apart from them, near the chapel door, where the light was strong, his silver watch open in his left hand, his form erect, his right hand lifted to the brim of his hat, his eyes upon the dial.

12. "Not yet! dear children. Not yet! Two minutes more. — Be ready. Not yet! — One minute more! — Have patience. Hold every one in his place. Be ready! Have patience." But, at length, when the little ones were frowning and softly sighing with the pain of upheld arms, their waiting eyes saw his grow bright. "Be ready!" he said with low intensity. "Be ready!" He rose on his tiptoes, the hat flounced from his head and smote his thigh, his eyes turned upon them blazing, and he cried, "Ring, children, ring!"

13. The elfin crew leaped up the ropes and came crouching down. The bell pealed. The master's hat swung around his head. His wide eyes were wet, and he cried again, "Ring! Ring!" Up and down the children

went, the bell answering from above, peal upon peal. when, just as they were all pulling together and the bell could sound no louder, the small cords gave way from their fastenings, the little ones rolled upon their backs, the bell gave one joyous double clang and turned clear over.

14. Before the children could recover the rope, the master had seized it. "'T is sufficient!" he said, his face all triumph. The bell gave a lingering clang or two and ceased, and presently the happy company walked across the green and entered the schoolhouse.

AUTUMN IN THE SOUTHLAND

15. It was in October that school began. The fall of the year had come. The crops of sweet potatoes, peanuts, corn, and cotton had been harvested, leaving the ground bare and brown. It is time to cut and thresh the rice and to grind the sugar-cane. The intense heat of summer had passed, and the cattle and horses are lying about in the open pastures, no longer seeking the shade of trees.

WINTER IN THE SOUTHLAND

16. There is no fierceness in the Southern winter. Slowly and kindly it strips the green robes from many a tree and leaves it open to the winds and rain of December. It is the season of rain and frost with seldom a fall of snow. The wet ponies and cattle turn away from the north and stand in the slanting storm with bowed

heads. Under the roof and on the veranda, the spinning-wheel hums, the loom pounds; inside, the logs crackle and blaze on the hearth. Every now and then comes sounding on the outer air the long, hoarse bellow of some Mississippi steamer, telling of the great world beyond the tree-tops, a little farther than the clouds and nearer than the stars.

17. On many a winter evening, as the family is gathered cozily around the fire, grandfather and grandmother tell the stories that were told to them when they were children. Will you listen to one of them?

THE TORTOISE

18. A gentleman who was living near the banks of the river caught a large tortoise, and went immediately to invite some friends to take dinner with him. His little boy, in his absence, went to the cage where the tortoise was. The tortoise began to whistle.

19. "How well you whistle!" said the child.

20. "Oh! that is nothing. Open the cage and you will see."

21. The boy opened the cage, and the tortoise whistled better than ever. The boy was delighted.

22. "Put me down on the floor and you will see," said the tortoise.

23. The boy did so, and the tortoise danced and sang.

24. "Oh, how well you dance and sing!" said the boy.

25. "Put me on the bank of the river, and you will see," said the tortoise.

26. The boy took the tortoise to the river and she danced and sang. All at once she disappeared in the water, and the boy began to cry. The tortoise rose in the middle of the river and said, "Learn not to trust hereafter people whom you do not know."

SPRINGTIME IN THE SOUTHLAND

27. But the winter is short. By February the spring has come. The little frogs begin to pipe to each other in every wet place. The grass begins to freshen. The gardens are spaded up. The brush is gathered and burned. The plantation fields are plowed and made ready for the planting.

SUMMER IN THE SOUTHLAND

28. March and April bring in the long summer-time. The song-birds are all back again, waking at dawn, and making the hoary cypress wood merry with their joyful calls to their wives and children in the nests. Busy times. They are hunting the helpless earthworm, gnat, grub, grasshopper, dragon-fly. They are watching for him; scratching for him; picking, pecking, boring for him; poisoning, swooping, darting for him; standing upside down, and peering into chinks for him. The mocking-bird has no rest whatever. Back and forth from dawn to dark, back and forth across the fields, always one way empty and the other way with his beak full of marketing. All nature is glad, gay, earnest. Corn in bloom and rustling in the warm breeze; blackberries ripe;

morning glories underfoot; trumpet-flower flaring from its dense green vine, high above on the trees; the cotton-plant blooming white, yellow, and red in the field beneath; honey a-making in the hives and hollow trees; butterflies and bees lingering in the fields at sunset; the moth venturing forth at the first sign of dew.

29. Thus the seasons follow one another around the year. Most years are joyful, but now and then a sorrowful year comes to people everywhere, as happened to those among the mountain pastures when the terrible avalanche fell on the village of Elm. Such a sorrowful year came to the little village below the river. It was the year of the great flood.

THE OVERFLOWING OF THE RIVER

30. It came in the springtime. For several days the children had been going to the river-bank after school to watch the rushing water. Logs of wood, piles of brush, now and then a shed torn from some farm up the river, floated by. Steamers and sailboats were hurrying up and down the river, and back and forth across it, dodging the wreckage, and blowing their whistles to one another as they passed.



Brown Brothers

A STEAMBOAT ON THE MISSISSIPPI RIVER

31. Each day the river rose higher and higher. People asked one another anxiously, "Will it overflow the banks?" "Will the levees hold?"

32. At last, the day came when the yellow flood began to trickle over the high bank. It flowed in thick, muddy streams down towards the village, filling the ditches and



Doubleday, Page & Company

A BREAK IN THE LEVEE

Find the bags of sand piled on the levee to keep the river from washing it away.
On the left is a house-boat.

all the swamp lands. Now the warning comes that the banks have given way in places up the river. The flood is upon the village, and the people must make haste to save themselves. To-day, you may be sure, and tomorrow and for many days to come, there will be no school in the little cabin near the chapel.

33. The women hasten to collect bedding and clothing, and to prepare as much food as they can. The men make

rafts and pile upon them all that they will hold. Boats are brought to the village for use when the flood drives them from their houses.

34. The water covers the fields and rises above the first story of the cottages. Then it begins to fall, but several days pass before the people can return to their homes.

35. There is desolation everywhere when the banks of the river are repaired and it is confined once more in its proper place. Everything is covered with slimy, yellow mud. The crops are ruined. The chickens, cattle, and horses are drowned. Many of the houses have been washed away. Life must begin all over again in the village. The summer came and went before the chapel bell called the children to school again.

36. If we should visit the village below the river to-day, we should find new and larger houses, and finer gardens and plantations. A railroad has been built through it, and it has grown to be a large town. A new schoolhouse with several teachers has taken the place of the little, one-room cabin. But, perhaps best of all, the Government has built new and stronger levees, that the lands may not again be flooded with the waters of the great river.

FOR PUPILS' STUDY

1. On your globe or map, find the state in which the Mississippi River begins. This is the source of the river.
2. In what state is its mouth? Find
- the Gulf of Mexico.
3. How does a river grow large?
4. Name the two largest tributaries of the Mississippi.
5. What work does a river do?

CHAPTER XX

ALL CHILDREN ARE NEIGHBORS

1. THE story of The Village Below the River was written in 1918. Nine years afterward, in 1927, the great river again broke through the levees that seemed to be so strong. The waters flowed over the land destroying the gardens and drowning many animals. Homes, churches, schoolhouses were washed away. But the people are as brave to-day as they were when they first went to live there. Our Government at Washington will help them repair the river-banks. Can you think of ways to prevent future floods from harming these people? What can our Government do to help?

2. As you have read the stories of the different children in this book, you must have said to yourself, "How differently they live from the way we live!" You have learned why they live differently. It is because they live in different parts of the earth. Let us think about some of the things you have studied, so that you may have a clearer picture of this world on which all the children live.

3. There is a word that you should know — *climate*. The parts of the earth where there is more cold than warm weather are said to have a *cold climate*. Where the weather is neither very hot nor very cold, the climate is said to be *temperate*. A hot climate is either *hot and dry*, or *hot and wet*.

4. What kind of climate is in each of these parts of the earth: (1) at the North Pole; (2) at the South Pole; (3) at the Equator; (4) at the Amazon River; (5) at the Sahara Desert; (6) at the top of a high mountain; (7) where you live?

5. What useful trees grow (1) in the hot, dry climate; (2) in the hot, wet climate; (3) in the temperate climate; (4) where you live?

6. What useful animals will you find (1) in the cold climate; (2) in the hot climate; (3) in the temperate climate; (4) where you live?



Brown Brothers

CHILDREN FROM MANY LANDS

Top row, standing, left to right: Greek, Negro, Roumanian, Lithuanian, Italian, Polish, Croatian, Hungarian. Middle row: American, Austrian, German, Bulgarian. Front row: Scotch, Russian, Irish, Syrian, Slavonic, Jewish, Spanish. Do these children look American? They all go to the same school.

7. Children dress their dolls as they themselves are dressed. How would children in the very cold climate

dress their dolls? — the children in the very hot climate?



Brown Brothers

A BOY FROM RUSSIA

Would a doll in the temperate climate have more kinds of clothes or fewer kinds than the dolls in the cold or the hot climate?

8. What kind of houses do people live in: (1) in the very cold climate; (2) in the very hot climate; (3) in the temperate climate?

9. Long ago the Indians were the only people who lived in what we call "our country." Everybody who now lives in the United States, except

the Indians, came from some other part of the world. So once we were *all* foreigners. From what country did your family come? Point it out on the map. What language is spoken in the country from which your family came?

10. When people first come from another country, they look queer to us and they feel unhappy among strangers. They dress as they did



Brown Brothers

FROM SUNNY ITALY

in their native land. They talk as they talked there. They bring also new stories, songs, and dances that we do not know.

11. We should welcome these newcomers and help them keep all the fine customs they bring. Every country grows better and stronger by having people from other lands come to make their home in it.

12. But it is not enough to understand and respect other people. We should also work and play happily with them and we should be kind to them when they are in trouble. In these ways every child can be a good neighbor and help to make the world a better place in which to live.

CHAPTER XXI

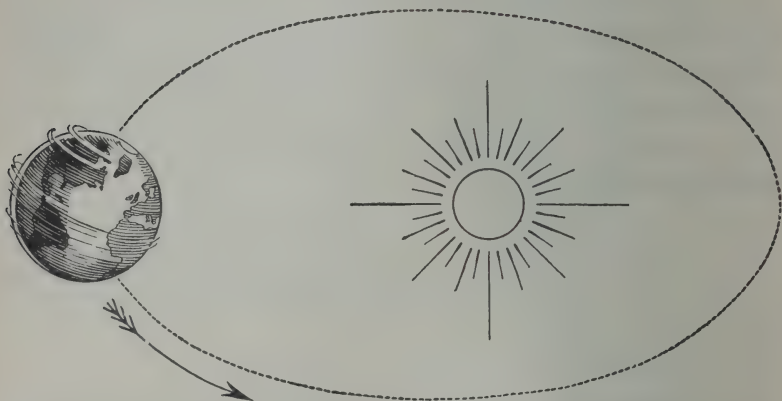
A TALK ABOUT MAPS AND HOW TO USE THEM

1. BEFORE we begin to talk about maps let us see what we know about the earth. A few questions will give us a good start.

- (1) What is the shape of the earth?
- (2) How do you know what shape it is?
- (3) Is the earth larger or smaller than the moon?
- (4) Which is larger, the earth or the sun?
- (5) How does it happen that we have night and day instead of darkness all the time or daylight all the time?
- (6) Does the earth whirl about in one place or does it travel?

2. This little picture may help you to see how the earth whirls around like a top and at the same time travels around the sun.

3. In this picture the earth is made much larger than the sun. But the truth is that the sun is more than one million times larger than the earth. Can you think why it is not shown that way here?



4. Perhaps you can draw this picture on the board and explain the two motions of the earth. Perhaps two children can act the part of the sun and the earth. Which should be the smaller child, the sun or the earth?

5. If you really understand these simple facts about the earth, you know much more than Columbus knew. The people who lived then had some very strange notions about it. Some of them were afraid that Columbus would sail over the edge of the earth, if he went far out into the Atlantic Ocean. They thought the earth was flat like a griddle cake.

6. The next pictures show what two other peoples, who lived long before Columbus, thought.



7. Find India (page 93). What do you remember about India and Ceylon?

8. Find the Mediterranean Sea (page 34), and Greece. Find Spain, from which Columbus sailed.

9. Now let us think again of the earth as we know it. It is a solid, round ball floating in the air. It is not held up by elephants and a turtle, as the people of India used to think. It does not rest on the shoulders of a giant, as the Greeks long ago believed. It whirls around like a top, making one complete turn every twenty-four hours. At the same time it is traveling very fast around the sun, making the journey of many million miles in one year.

10. But we haven't said a word about maps, although at the head of this chapter it reads, "A Talk About

Maps and How to Use Them." We will begin here to talk about maps.

11. A map is a picture of the surface of the earth.

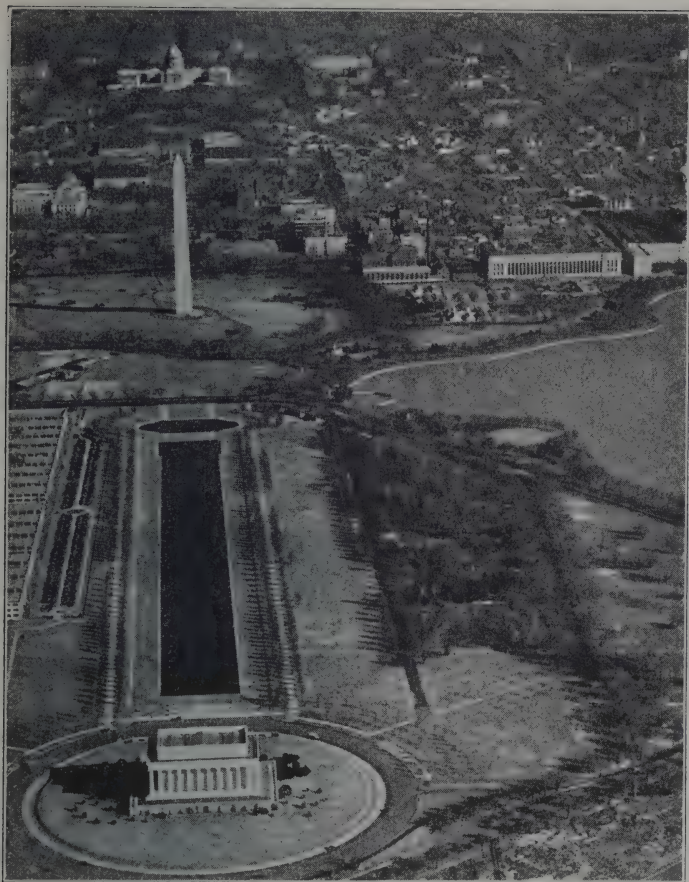
12. There are different kinds of pictures. Those taken with a camera are called photographs. Have you a photograph of yourself at home? There are also pictures that are drawn with a pencil or pen, or painted with a brush. Which will be a better likeness, a photograph or a picture of you that some one draws?

13. Only a small part of the earth can be photographed at one time. In this book there are many photographs of small parts of the earth. On the next page is a picture of a part of the Capitol of our country taken from the air.

14. Because it is not possible to take a picture of the whole earth at one time, globes and maps have been made. The maps that give us the best picture of the earth are like those in this book opposite page 1 and on pages 34, 93, and 108. Perhaps you would be interested to know how they were made.

15. Some years ago a group of blind children went to the American Museum of Natural History in New York City. Because they could not see, a rough globe was made so that they could *feel* where the continents, mountains, rivers, oceans, and islands were. This globe was put into a dark room and four pictures of it were taken. These are the four pictures of the earth in this book.

16. On page 164 is a picture of a part of the earth. It is not a photograph. It was drawn to show how Charles



Augustus Lindbergh flew from New York to Paris in the *Spirit of St. Louis*.

17. But Lindbergh, or the captain of a ship, must have some way of knowing where he is and in what direction he must fly or sail to get where he wants to go. On land we walk along roads and streets. When



we come to where streets cross, we start from there in the direction we want to go. On the opposite page you will see how flyers and sailors find their way in the air and on the sea without roads.

18. In this picture of the earth you will find some lines. There are two sets of them. One set connects the North and South Poles. The other lines run across these.

19. Of course there are no such lines on the real earth, as you can see by looking at the pictures of the globe in this book and this picture that was taken from an airplane. Then, too, if there were any such lines on the earth, would you not see them as you walk about on it? They are put on pictures of the earth to help us find the *direction* that one place is from another. Those who fly long distances through the air or sail over the ocean mark out their journey on pictures of the earth on which these lines are drawn, as you see the path of Lindbergh's flight is marked. Such pictures are called *maps*, and we must use maps to find out in what direc-

tion one place is from another when we study geography. So let us talk a little about these lines that are so important for us to know about.

20. Look at the map below. On the map find the line that passes from left to right through the mouth of the Amazon River in South America. This is the Equator. Find in the Index at the back of this book the word *Equator*. Read what is said about it on the pages, before page 165, that are given in the Index.



21. If you are standing anywhere on the Equator facing north and you want to travel *east*, you must walk along the line of the Equator *to the right*. If you want to travel *west*, you must walk along the line of the Equator *to the left*.

22. There are other lines on both sides of the Equator parallel with it. These also are east-west lines. There are only a few drawn on any map, but a sailor draws on his map as many as he needs, for when he wants to sail directly east or west he must sail along one of the east-west lines. These lines are called *parallels* because they

are all parallel with the Equator and with each other. Parallel lines are like the tracks of a railway that always keep the same distance apart.

23. We noticed on the map on page 165 that there are two sets of lines. The parallels make one set. The lines that connect the North and South Poles make the other set. We will use the map on this page as we talk about these lines.



24. At the top of this map you will see a flag flying. This point is the North Pole. Why is this flag a United States flag? Read again Chapter II in this book. This map should help you to understand why Mr. Peary said, when he stood where this flag is:

“East, west, and north had disappeared for us. Only one direction remained and that was south.”

25. If you stand at the North Pole, every step you take away from it is in the direction of the South Pole, and that is always south. Wherever you are on the earth,

south is toward the South Pole and north is toward the North Pole. The lines that you see drawn from the North Pole on the map opposite are north-south lines. These lines are also called *meridians*. The word *meridian* is made of two Latin words that mean *middle-day*. They are called meridians, or middle-day lines, because, when the sun is directly over a north-south line, it is twelve o'clock, noon, or midday for every place through which that line passes, all the way from the North to the South Pole.

26. Parallel and meridian are two hard words, but are you not old enough to learn them and to use them?

HOW TO USE MAPS

27. On page 169 there are three different kinds of maps. Let us notice first that the continents do not have the same shape in maps A and B. Compare North America in these two maps. Compare Australia.

28. Map A shows all of the earth's surface. On a globe you can see only half of the earth at one time. Many years ago a man named Mercator, who lived in Holland, said to himself, "If the surface of the earth were a rubber skin and I could peel it off, and then stretch the North and South Poles to left and right to the width of the Equator, I should be able to see all of the surface at one time." Of course he could not peel off the earth's surface and stretch it in this way, but he drew a picture of what would happen if he did. So we have maps like A, in which the North Pole is not marked by a point, as it is on the globe and on maps that look

like a globe, but is marked by a line that stretches way across the top of the map. The South Pole is also a line stretching way across the bottom of the map. But, when the Poles were pulled out this way into lines, the meridians became straight lines and the land and water near the Poles became wider than they really are.

29. In map B the Equator is pulled out to right and left instead of the Poles, and the meridians become more curved than they are on a round map. (See map on page 165.) When that is done, the land and water in the middle of the map is pulled out of its real shape.

30. So you see that some maps do not give the true shapes of land and water and that the parallels and meridians are not drawn alike on all maps. But you should remember this, that on each map the parallels are the true east-west lines and the meridians are the true north-south lines *for that map*. If you want to go north or south on a map, you must follow the meridian that passes through that place. If you want to go east or west, you must follow the parallel that passes through that place.

31. If you understand this talk about maps and how to use them, you can find the true directions on any map. But there is just one other little matter that you should know; that is, that north is not *up* and south is not *down*.

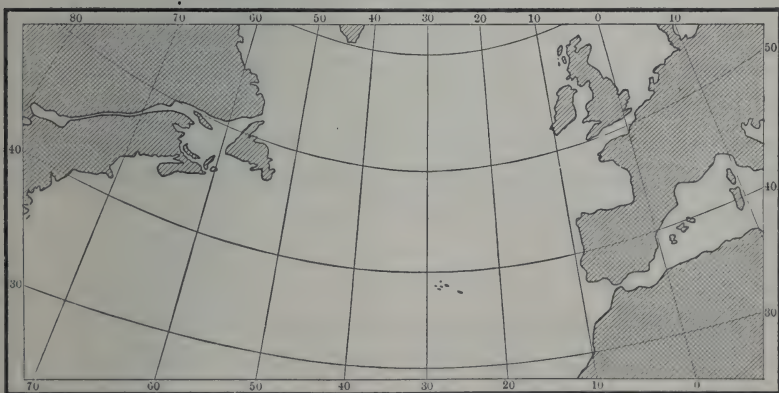
32. People often say "up north" and "down south," perhaps because maps always hang with the north side up and globes stand with the North Pole up. But, if you put your map on the floor with the north side toward



MAP A



MAP B



MAP C

the North Pole, you will then see that north is not *up* at all. North is along the surface of the earth toward the North Pole. South is along the surface of the earth toward the South Pole. The clouds are up and the center of the earth is down. So, after this, when you are talking about directions on a map, you will not use the words *up* and *down*, but only north and south.

To Teachers. It will be well to follow the study of this chapter with exercises in which pupils will use parallels and meridians in finding directions on the globe and on maps constructed on different projection systems. Maps appear frequently in newspapers. Let the pupils bring these to school for class discussion, perhaps drawing on the board a rough sketch showing the particular system of direction lines.

CHAPTER XXII

TO REMEMBER

DURING the past few months you have been studying about the children who live in different parts of the earth. You have just learned how to tell correctly the direction that one place is from another on any map. Some of the things you have studied about are useful to remember. They will help you to understand what you read in books and newspapers and they are important in your further study of geography. In this chapter you will review some of these things and perhaps you will add new facts to those you already know.

THE EARTH

1. What is the shape of the earth?
2. In what two ways does it move?

3. Who first went to the North Pole?
 4. What did he find there?
 5. Who first went to the South Pole?
 6. What did he find there?
 7. Who first sailed across the Atlantic Ocean?
 8. Who first sailed around the world?
 9. What white man first saw the Pacific Ocean?
 10. What are the north-south lines on a map called?
 11. What is "north"?
 12. What is "south"?
 13. What and where is the Equator?
 14. What are the east-west lines on a map called?
 15. What is "east"?
 16. What is "west"?
 17. Where would you go to find a cold climate?
 18. Where would you go to find a hot, dry climate?
A hot, wet climate?
 19. Where on the earth is the climate temperate?
 20. What kind of a climate has your own country?
- What other important things about the earth can you think of?

CONTINENTS AND OCEANS

1. Give the names of the continents.
2. Through what continents does the Equator pass?
3. Which continents are entirely north of the Equator?
4. Which continent is entirely south of the Equator?
5. On which continent did Columbus live?
6. What continents make up the "new world"?

7. What continents make up the "old world"?
8. Do you live in the "new" or the "old" world?
9. Why are they called "old" and "new" worlds, when there is really only one world?
10. Which is the largest continent? Which the smallest?
11. On what continent do you live?
12. Give the names of the oceans.
13. Which is the largest ocean?
14. About how much of the earth's surface does this ocean cover? (Look on page 108.)
15. Across which ocean would you go from America to Europe? From Africa to South America? From Africa to China? From the United States to Japan?

Columbus was the first one to cross the Atlantic Ocean. His three little boats sailed across in ten weeks. How many months is that? About how many days?

One hundred years ago a woman sailed from Europe to America in a vessel, larger of course than that in which Columbus sailed. She was on the water six weeks before she reached the new world. A short time ago a granddaughter of this woman went from North America to Europe to visit the country from which her grandmother came. But she went in a big steamship which crossed the Atlantic in six days. How long does it take an airship to fly across this same ocean?

About how many weeks does it take a fast steamer to sail across the Pacific Ocean from California to Japan? At what islands would they probably stop on their way? What fruit comes from there?

SEAS AND GULFS

There are two kinds of seas. One kind is like a very large pond or lake entirely surrounded by land. The Black Sea between Europe and Asia is such a sea. The other kind of sea is a part of an ocean more or less surrounded by land. There are three others names of bodies of water of which you should know the meaning. Let us stop here and learn them.

A *harbor* is a small part of a larger body of water where ships can go close to land for safety in stormy weather.

A *bay* is a larger part of the ocean that is quite well surrounded by land.

A *gulf* is a still larger part of the ocean.

Find on your map or the globe the Gulf of Mexico; the Caribbean Sea; the Mediterranean Sea; the North Sea.

Are there other important gulfs or seas that you should know?

Name two or three important harbors anywhere in the world and find them on a map.

ISLANDS

What is an island?

The United States owns some important islands. They are Porto Rico, the Virgin Islands, the Hawaiian Islands, several of the Samoan Islands, the Philippine Islands. Find these on your map.

Where are these islands — Greenland, Cuba, Japan, the British Isles? What island is also a continent?

MOUNTAINS AND RIVERS

In North America the important mountains and rivers are the Rocky Mountains, the Sierra Nevada Mountains, the Appalachian Mountains, and the Mississippi River.

In South America: the Andes Mountains and the Amazon River.

In Europe: the Alps Mountains and the Rhine River.

In Africa: the Nile River and the Congo River.

In Asia: the Himalaya Mountains.

Are there any other mountains and rivers that you should know? What great range of mountains and what great river is nearest your home?

COUNTRIES

In North America the important countries are the United States, Canada, and Mexico.

In South America: Brazil, the Argentine Republic, Chile, Peru.

In Europe: Great Britain, France, Germany, Italy, Spain, Norway, Sweden, Holland, Belgium, Russia.

In Africa: Egypt, the Union of South Africa.

In Asia: India, China, Japan.

In Australia — This is the name of the continent and also the country which occupies the whole continent.

CITIES

1. How does a village differ from a city?
2. What is the largest city you have ever been in?
3. Tell something interesting or important about

New York, New Orleans, San Francisco, Chicago, Boston, St. Louis, Washington, London, Paris, Rome, Constantinople, Cairo, Peking, Rio de Janeiro.

Name any other cities that you think are important and tell where they are and why you think they are worth remembering.

THE UNITED STATES

There are many things that every one should know about his own country, far too many things to print on one page. So, instead of asking questions or telling you the facts to remember, a few subjects will be given to guide you in recalling what all should know about their own home land.

1. Should not every one know a little about some of the men and women who have helped to make his country great? What men and women do you think have done this?
2. There are forty-eight States in the United States. Should not every one know the names of all of them, the names of the most important States and the part of the country in which they are, and the names of the States that touch his own?
3. Then, too, every one should know where the great forests and the mines of coal and iron are, where animals are raised in large numbers for food, in what parts of the country grain, cotton, and fruit grow in large quantities, and where manufacturing is chiefly done.

4. And every one should know the important things about his own State — a little about its history, its important mountains, rivers, and cities, and the chief business that is done in it.

CHAPTER XXIII

GEOGRAPHY GAMES

To Teachers. These games are really five types of tests.

No. 1 is the Association Test.

No. 2 is the Completion Test.

No. 3 is the Multiple Choice Test.

No. 4 is the True-False Test.

No. 5 is a Map Test.

The pupils can make similar games, using facts of their own choosing. With a little help they may thus review the different phases of their past study in a way that will hold their interest and bring into play their initiative and judgment. They will find the Index a helpful guide to different groups of facts, and to answers to questions. Teach them how to use it.

NO 1. WHAT I KNOW GAME

To play this game make a short, true statement about each thing or place: —

- | | |
|--|----------------------|
| 1. volcanoes | 6. earthquakes |
| 2. glaciers and icebergs | 7. levees |
| 3. caravans | 8. springs and wells |
| 4. avalanches | 9. oases |
| 5. jungles | 10. meridians |
| 11. Tell a fable about animals. | |
| 12. Tell a true story about some animal. | |
| 13. Tell about the animals useful to man
in different parts of the world. | |

14. Tell about the trees useful to man in different parts of the world.
15. In what kind of houses do people live in different parts of the world?

NO. 2. FILLING BLANKS GAME

To play this game say at the dashes the words that will make the statements true.

1. The Atlantic Ocean is ——— as large as the Pacific.
2. Two great rivers in North America are the ——— and the ———.
3. The country north of the United States is ———. The country south of it is ———.
4. Tea comes from ———, ———, ———.
5. Cotton grows in the ——— part of our country.
6. Glaciers are ———. They are found in ——— parts of the earth.
7. William Tell lived in ———.
8. The highest mountains in our country are ———.

NO. 3. CHOOSING GAME

To play this game choose from the words that follow each dash the one that makes the statement true.

1. The Nile River is in — South America, Asia, Africa.
2. To go to China from the United States you sail — east, south, west; across — the Indian, Pacific Ocean.
3. Oranges grow in — Lapland, California, Florida.

4. The climate of the United States is — frigid, temperate, torrid.
5. I live nearest to — St. Louis, New York, Boston, New Orleans, Philadelphia, Chicago, Baltimore.
6. The United States owns — Ceylon, Alaska, Cuba, Australia, Porto Rico, the Hawaiian Islands, Labrador, Greenland, the Philippine Islands.

NO 4. YES OR NO GAME

To play this game you say "Yes," if you think the statement is true, or you say "No," if you think it is not true. If it is not true, make a statement that is true.

1. There is no land around either the North or the South Pole.
2. No one has ever flown across the Atlantic Ocean in an airship.
3. There are no volcanoes in the United States.
4. Australia and the United States are about the same size.
5. The Equator passes through the United States.
6. Columbus sailed from Norway across the Pacific Ocean when he discovered America.
7. Elephants and reindeer are found in the same places.

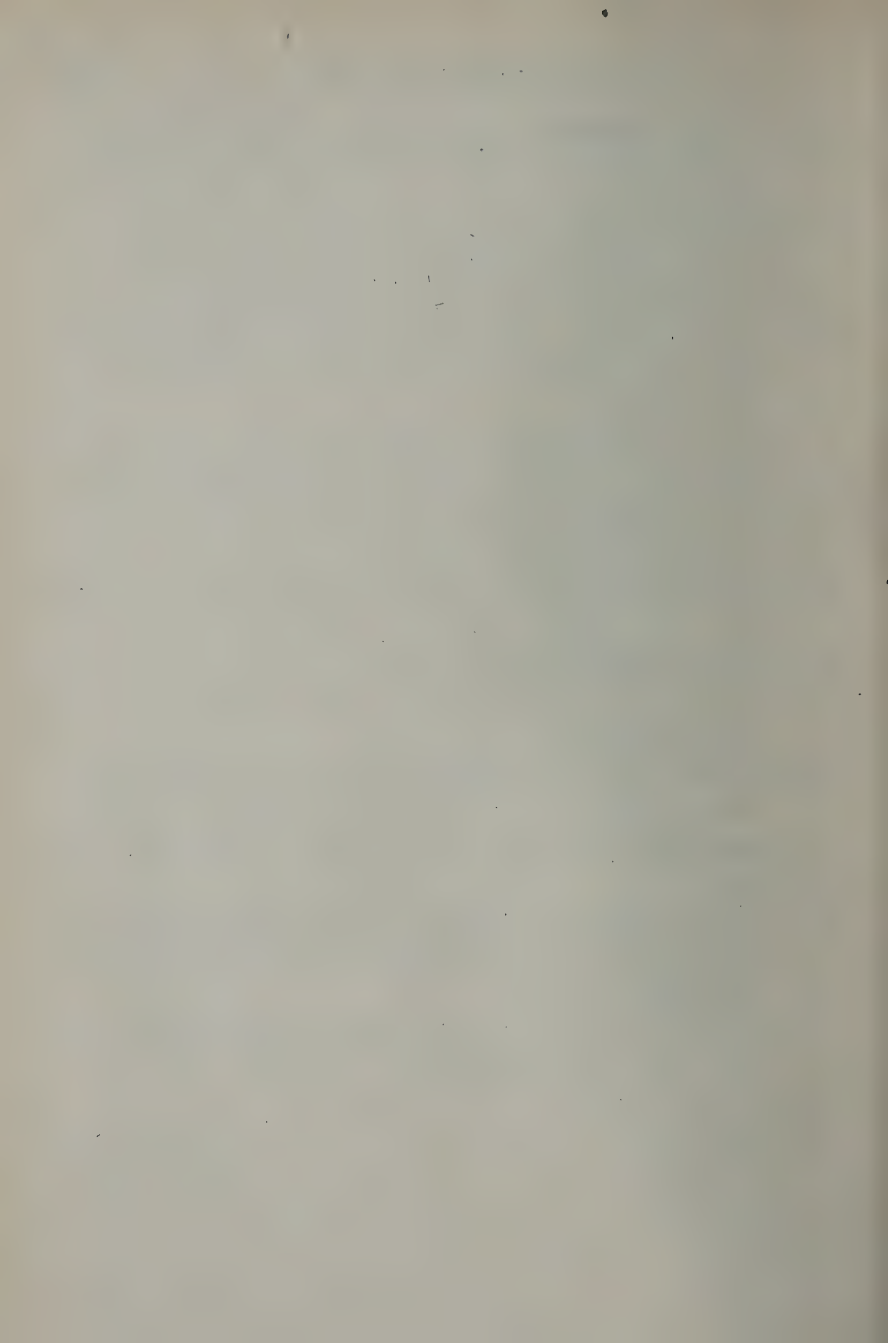
NO 5. TRAVEL GAME

This game gives you practice in following parallels and meridians, as a sailor or airman does, when he travels about the world.

1. If one airship started from Chicago and another

airship started from London, and both were guided directly north, where would their paths cross?

2. If you sailed directly east from New York, to what country in Europe would you come?
3. If you sailed due west from the Mediterranean Sea, to what part of the United States would you come?
4. If you sailed from France due west across the Atlantic Ocean, to what island would you come?
5. If you kept on sailing west around this island, into what river would you sail?
6. If you sailed up this river into what lakes would you sail? What country would be on the north? What country on the south?
7. Which continent extends farther south, Africa or South America?
8. If you were in Florida and flew in an airship due west around the world over what five important countries and across what great desert would you fly?
9. If you should fly directly south from the tip end of Florida to the Equator, in what ocean would you find yourself?
10. In this flight above what large island would you fly? What canal would you be likely to see?



BOOKS FOR CHILDREN'S READING

WITH CHAPTERS I-II

Swatka: *The Children of the Cold*. Educational.

Scandlin: *Hans the Esquimo*. Silver.

WITH CHAPTERS III-IV

Peary: *The Snow Baby*. Stokes.

Dwight: *Children of Labrador*. Revell.

WITH CHAPTER V

Aanrud: *Lisbeth Longfrock*. Ginn.

Colburn: *Our Little Swedish Cousins*. Page.

Holbrook: *Northland Heroes*. Houghton.

WITH CHAPTERS VI-VII

Frolicher: *Swiss Stories and Legends*. Macmillan.

Wade: *Our Little Swiss Cousins*. Page.

Campbell: *Story of Little Conrad, the Swiss Boy*. Putnam.

Spyri: *Heidi*. Houghton.

Spyri: *Moni, the Goat Boy*. Ginn.

WITH CHAPTERS VIII-IX

McManus: *Our Little Egyptian Cousins*. Page.

WITH CHAPTERS X-XI

Stanley: *My Kalulu, Central Africa*. Scribner.

Scudder: *Fables and Folk Stories*. Houghton.

Wade: *Our Little African Cousin*. Page.

WITH CHAPTERS XII-XIII

Wade: *Our Little Brown Cousins*. Page.

Allen: *Children of the Palm Lands*. Educational.

Ghosh: *The Wonders of the Jungle Books, I-II*. Heath.

Jenks: *Balonglong, the Igorot Boy*. Row, Peterson.

WITH CHAPTERS XIV-XV

Wade: *Our Little Hawaiian Cousin*. Page.

WITH CHAPTER XVI

Defoe: *Robinson Crusoe*. Houghton.
 Wyss: *Swiss Family Robinson*. Ginn.

WITH CHAPTER XVII

Abbott: *A Boy on a Farm*. American Book.
 Bass: *Stories of Pioneer Life*. Heath.
 Cobb: *Anita — A Story of the Rocky Mountains*. Low.

WITH CHAPTER XVIII

Schultz: *Sinopah, the Indian Boy*. Houghton.
 Long: *Ways of the Wood Folk*. Ginn.
 Seton: *Wild Animal Ways*. Houghton.
 Hulbert: *Forest Neighbors*. Row, Peterson.
 Wade: *Indian Fairy Tales of the Wigwam*. Wilde.

WITH CHAPTER XIX

Harris: *Uncle Remus*. Houghton.
 Holbrook: *The Book of Nature Myths*. Houghton.

WITH CHAPTER XX

Perdue: *Child Life in Other Lands*. Rand, McNally.
 Chance: *Little Folks of Many Lands*. Ginn.
 Schwartz: *Five Little Strangers*. American Book.
 Wade: *Our Little Russian Cousin*. Page.

BOOKS FOR GENERAL READING

Perkins: The series of "Twin" Books. Houghton.
 Carter: *Stories of Brave Dogs*. Century.
 McDonald and Dalrymple: *Little People Everywhere*. Little, Brown.
 Thomas: *Home Life in Far Away Lands*. Ginn.
 Smith: *Home Folks*. Winston.
 Mulliken: *Boys and Girls of Colonial Times*. Ginn.
 Terry: *History Stories of Other Lands*. Row, Peterson.
 Book I — Tales from Far and Near
 Book II — Tales of Long Ago.
 Grover: *Old Testament Stories*. Little, Brown.
 Tanner: *Yesterdays' Children*. Rand, McNally.

FOR GENERAL INFORMATION

The Book of Knowledge — The Children's Encyclopedia. The Grolier Society.

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KEY TO PRONUNCIATION:

ā as in āle	a as in fi'nal	e as in re'cent	ô as in ôrb
â as in sen'âte	ă as in ăll	ī as in īce	ō as in ôdd
â as in câre	ē as in ēve	î as in î-de'a	ū as in ūse
ă as in ăm	ê as in ê-vent'	ÿ as in ÿll	û as in û-nite
ä as in ärm	ě as in ěnd	ō as in ôld	u as in full
å as in åsk	ē as in fērn	ô as in ô-bey	ŭ as in ŭp

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